# BUSINESS WEEK

**Educational TV** 

WHERE'S IT GOING?



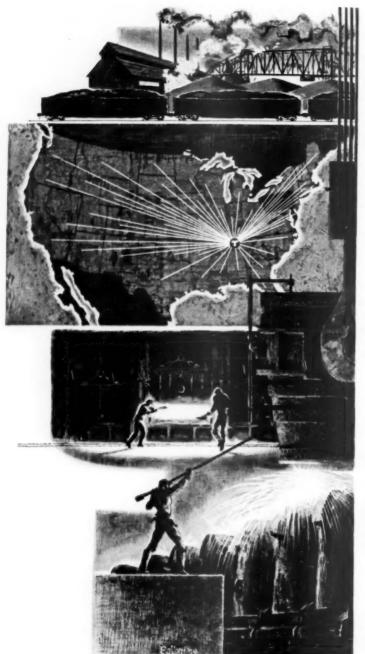


Alfred E. Lyon and O. Parker McComas: More production for more sales (page 72)

A-MEGRAW-HIEL PUBLICATION

MAY 17, 1952

# THERE'S A TOUCH OF TENNESSEE IN PENNSYLVANIA STEEL



Steel is as much a part of the Pennsylvania story as Benjamin Franklin or William Penn. It is the hard core of a strong America whether it is made in Pittsburgh, Birmingham, Chicago or St. Louis. Wherever it's made, steel and castings need Tennessee Products...pig iron and coke as well as ferro alloys. To Pennsylvania and across the nation, TENNESSEE also ships Methanol for denaturing alcohol. Sodium Benzoate for food processing and many other products essential to industry and agriculture.

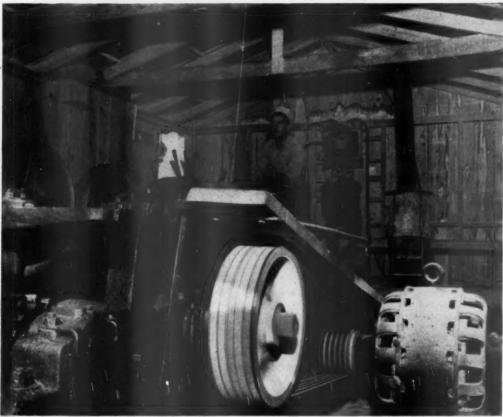
Pennsylvania's industry is a good customer of Tennessee Products as is industry in all the 48 states. That's why TENNESSEE is known from Coast to Coast as an industry serving all industry.



# TENNESSEE PRODUCTS & CHEMICAL

Corporation
NASHVILLE, TENNESSEE

Producers of: FUELS • METALLURGICAL PRODUCTS • TENSULATE BUILDING PRODUCTS • AROMATIC CHEMICALS WOOD CHEMICALS • AGRICULTURAL CHEMICALS



# Air lift-for 50-ton chunks of marble

A typical example of B. F. Goodrich improvement in rubber

THAT derrick operator has his eye on a 50-ton chunk of marble he's swinging through the air from a quarry to a railroad car. An electric motor supplies the power for the weightlifting act — with an assist by the rub-ber V belts which link motor to hoist.

Belts once used to drive the derrick gave trouble. The heavy loads caused stretching, slipping. It was dangerous and inefficient. Obviously, an entirely new kind of belt was needed which could stand the heavy loads without stretch or slip.

The local B. F. Goodrich distributor

recommended grommet V belts to eliminate the problem of slipping. The grommet V belts put an immediate stop to slipping and provide more power to the hoist.

A grommet is a tension member inside the B. F. Goodrich V belt. It's made like a giant cable except that it is endless - a husky cord loop made by winding heavy cord on itself. There are two grommets in a B. F. Goodrich V belt. They stand shock and heavy loads. The grommers help the belt grip better by holding the sides of the belts in place in the pulley grooves. And

they last 20 to 50% longer than ordinary V belts.

The grommet is typical of B. F. Goodrich product improvement—it saves money, does jobs better for industries of all kinds. It's a good reason for you to get in touch with your local B. F. Goodrich distributor whenever you need industrial rubber products or technical help. The B. F. Goodrich Company, Industrial & General Products Division, Akron, Obio.

B.F. Goodrich

RUBBER FOR INDUSTRY

PIN-POINT YOUR NEW PLANT

# ... in a TATURAL GAS Community

Stick a pin in almost any portion of the Gulf South map, and you'll strike a plant location where there are adequate, dependable supplies of natural gas fuel. More than 450 cities and towns in the Gulf South obtain natural gas from the pipe lines of United Gas—and every one offers significant advantages to your new plant.

This is the bustling, busy, building frontier where American industry has placed one-sixth of all new plant construction since 1945. You, too, will join the movement to the Gulf South if you will investigate its possibilities. And if fuel is a problem, consult our Industrial Development Director, P. O. Box 1407, Shreveport, Louisiana.

UNITED GAS

TOMISIEMS

... SERVING THE

Gulf South

# ESSWEEK

EDITOR & PUBLISHER Elliott V. Bell MANAGING EDITOR Edgar A. Grunwald EXECUTIVE EDITOR Kenneth Kramer

ASSISTANT MANAGING EDITOR Robert B. Colborn ASSOCIATE MANAGING EDITOR John L. Cobbs ASSOCIATE MANAGING EDITOR Peter French

#### **DEPARTMENTS**

Business Outlook: Clark R. Pace, Editor; William B. Franklin
Financa: William McKee Gillingham, Editor; J. P., Chamberlain
Foreign: Howard Whidden, Editor; Paul R. Miller, Jr.
Industrial Production: Irving Stone, Editor; Charles M. Garvey
Labor: Merlyn S. Pitzele, Editor; Edward T. Townsend, Stanley H. Brown
Managemen: Richard L. Waddell, Editor
Marketing: Carl Rieser, Editor; Cora Carter
Regions: Richard M. Machol, Editor
The Trend: Gabriel S. Hauge, Editor

Illustration: James C. Nelson, Jr., Editor; Mary Flaherty (Pictures), Jacquelyn Lang, Beatrice Mullin, Kate McSweeney, Arthur Richter, Dick Wolters (Photographer)
Statistics: Gertrude Charloff

Library: Mildred L. Washburn, Librarian; Dorothy Roantree, Ruth Callanan

#### NEWS EDITORS

T. B. Crane, Robert F. Deed, Frank J. Fogarty, Maxwell D. Gunther, Irene Pearson, Guy Shipler, Jr., Doris I. White

#### EDITORIAL ASSISTANTS

Marilyn T. Benjamin, Phyllis Bentley, Jean Drummond, John Hoffman, Harry Jensen, Keith Kunhardt, Mary Maguire, Dorothea Schmidt

#### ECONOMICS STAFF

Dexter M. Keezer, Director; Richard Everett, Howard C. Gary, Douglas Greenwald, Beryl M. Hegarty, Earl Holmer, LaWanda Turner, Robert P. Ulin

#### DOMESTIC NEWS SERVICE

Boston Bureau: John Hartshorne, Manager
Chicago Bureau: James M. Sutherland, Manager; Mary B. Stephenson, Dorothy Miller
Cleveland Bureau: Robert E. Cochran, Manager
Detroit Bureau: Stanley H. Brams, Manager; James C. Jones, Jr., Glenna S. Sotier
Los Angeles Bureau: Thomas M. Self, Manager
Pittsburgh Bureau: Richard N. Larkin, Manager
San Francisco Bureau: Richard Lamb, Manager; Joanne O'Brien

Washington Bureau: George B. Bryant, Jr., Manager; Glen Bayless, Carter Field, Boyd France, Joseph Gambatese, Sam Justice, William H. Kearns, John L. Kent, Donald O. Loomis, Edward McLain, Jesse Mock, Gladys Montgomery, Arthur L. Moore, Caroline Robertson, Vincent Smith, W. B. Whichard, Jr.

Whichard, Jr.

Correspondents: Akron, Albany, Albuquerque, Altoona, Asheville, Atlanta, Austin, Baltimore, Birmingham, Bloomington, Bridgepore, Buffalo, Charleston, Charlotte, Cincinnati, Columbus, Concord, Dallas, Denver, Des Moines, Duluh, Endicote, Escanaba, Fort Lauderdale, Fort Worth, Green Bay, Greensboro, Harlingen, Harrisburg, Hartford, Houston, Indianapolis, Jackson, Jackson-ville, Kansas City, Knoxville, Lakeland, Little Rock, Louisville, Madisoon, Memphis, Miwaukee, Minneapolis, Nashville, New Orleans, Norfolk, Oklahoma City, Omaha, Orono, Peoria, Philadelphia, Portland, (Ore.), Providence, Richmond, Rochester, Sult Lake City, San Antonio, San Diego, Seattle, St. Louis, Syracuse, Toledo, Topeka, Tulsa, Urbana, Wichita, Wilmington, Worcester, Seattle, S Hopolulu

#### FOREIGN NEWS SERVICE

Editor: Russell F. Anderson Frankfurt: Gerald W. Schroder London: Nathaniel McKitterick Manila: Herbert Leopold

Mexico City: John Wilhelm Paris: Ross Hazeltine Rio de Janeiro: Joseph K. Van Denburg, Jr. Tokyo: Alpheus W. Jessup

Mantal: Herbert Leopoid
Correspondents: Addis Ababa, Amsterdam, Asuncion, Athens, Baghdad, Bangkok, Barcelona, Beirut,
Bogota, Bombay, Brussels, Buenos Aires, Cairo, Caracas, Ciudad Trujillo, Copenhagen, Djakarta,
Geneva, Guatemala Ciry, Halifax, Havana, Helsinki, Istanbul, Johannesburg, La Pax, Leopoldville,
Lima, Lishon, Luxembourg, Madrid, Managua, Maracaibo, Montevideo, Melbourne, Montreal,
Moscow, Oslo, Ottawa, Panama Ciry, Quito, Reykjavik, Rome, Salzburg, San Jose, San Juan,
San Salvador, Santiago, Singapore, Stockholm, Sydney, Tangier, Tehran, Tel Aviv, Toronto, Vienan San Salvador, Santi Wellington, Zurich

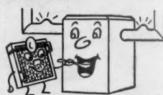
ADVERTISING & BUSINESS MANAGER Herman C. Sturm

BUSINESS WEEK . May 17 . NUMBER 1185

which are combined The Annalist and the ine of Business) • Fabrished weekly by w-Hill Publishing Company, Inc., James COraw (1860-1848) Founder • Pub-n 600c., 98-128 Worth Bracedwy, Albany, Advertising.
Address correspondence regards to J. E. Blackburn, Jr., Vice-



DUST FLATTENS SUN! Don't rush to an eye doctor if you get up some morning and see a watermelon-shaped sun climbing the horizon. It's only an illusion. Rays from the top and bottom of the sun, bent at different angles by the earth's dust-laden atmosphere, make the sun look squashed on top and bottom instead of round.



CHEAPER DIET FOR FURNACES! You can pep up your furnace and cut fuel bills by replacing dirt-clogged air filters with new, disposable Dustays. Dustays hold more dirt without clogging, give you more heat per fuel dollar, last longer.



TRAPS DUST! Air-Maze air filter panels keep troublesome dust out of hotels, railroad cars, commercial and industrial buildings. Cleaning bills are cut, employees and customers are happier. Air-Maze filter panels are easily cleaned, have high dirt-holding capacity.

WHETHER YOU BUILD OR USE engines, compressors, air-conditioning and ventilating equipment, or any device using air or liquids the chances are there is an Air-Maze filter engineered to serve you better. Representatives in all principal cities, or write Air-Maze Corporation, Cleveland 5, Ohio.

The Filter Engineers

AIR FILTERS SILENCERS SPARK ARRESTERS

LIQUID FILTERS OIL SEPARATORS

# The Metals with a new point of view...



A fabulous finger of metal, more than a quarter of a mile high, towers into the sky above the streets of New York City.

It is the tallest man-made structure on earth—nearly three times as high as the Washington Monument. The beacon light on its tip is sometimes hidden in the clouds. And the copper ribs along its spine have literally pushed back the earth's horizons.

This is the new Empire State multiple television antenna. From its dizzying height all five of New York's major networks broadcast their signals simultaneously... twice as far as they ever did before. In the first year of its operations, it has brought millions of people in remote rural areas their first view of television.

Here is a triumph of modern metals at work...each metal carefully hand-picked to perform the job it does best. Copper for antennas, coaxial cables, hundreds of miles of hair-fine wire. Manganese and vanadium to harden and strengthen the structural steel. Silver, selenium, brass and zinc are vital metals in the instrument panels to keep the complex system under split-second control.

In keeping with the development of such advancements in engineering is Anaconda's far-reaching program of pioneering and progress in metals . . . devising new techniques in mining and metallurgy . . . developing new ways to produce better products.

In the laboratories, the mines and the mills of Anaconda, this program of research and expansion is continually going forward....

So that progress in metals will keep abreast with progress in science and industry....

So that men of foresight and good will may push back the horizons of all the world to a new and enlightened tomorrow.

This photograph was taken with a 180° lens and shows of New York City from the tip of the Empire State Building antenna tower. At the top is the East River. (The rectangular building at left is the home of the United Nations.) At extreme left are the sky-line of Connecticut and up-state New York. To the extreme right lie the skyscrapers of Wall Street and beyond them New York Harbor. The Hudson River is at the bottom. The shadow pointing to 10 o'clock is that of the Empire State Building itself. The object at the bottom is the navigation warning-light on the tip of the tower. The photographer's shoulder become recognizable by turning the picture counter-clockwise.



THE TELEVISION PROGRAMS are carried from the transmitters at the base of the tower to the various antennas through a complex system of copper coaxial lines. Thousands of feet of Anaconda high-conductivity copper tube, made to exacting mechanical and electrical specifications, were supplied by The American Brass Company, an Anaconda manufacturing subsidiary.



ENGINEERS CHECK THE QUALITY of picture and sound transmission on the screens and instruments in this WNBT Control Room. Electrical cables made by Anaconda Wire & Cable Company bring the electric power which TV stations need to put their programs on the air. At home Anaconds improved television lead-in lines help you enjoy clear reception on your TV set.



BECAUSE OF DEVELOPMENTS like the Empire State multiple antenna, millions more Americans are now enjoying television. Today, defense has first call on all metals. But Anaconda is producing more metals... improving methods of mining and manufacturing... to meet the demands of science and industry.



PRODUCERS OF: Copper, zinc, lead, silver, gold, platinum, cadmium, vanadium, selenium, superphosphate, manganese ore, ferromanganese.

MANUFACTURERS Of: Electrical wires and cables, copper, brass, bronze and other copper alloys in such forms as sheet, plate, tube, pipe, rod, wire, forgings, stampings, extrusions, flexible metal hose and tubing.

# Rare gases boost light of new Westinghouse



YOU CAN BE SURE ... IF IT'S

Westinghouse

# and efficiency 90 watt lamp

The light and efficiency booster in the new Westinghouse 90-watt fluorescent lamp is kryptonargon. This gas fill, exclusive with Westinghouse, takes only 2% more current to jump light output 6%. And after 7500 hours, this new lamp will still outshine every other lamp in its class.

The new 90-watt will fit your present 85-watt or 100-watt fixtures. It will hold the level of light above your minimum foot candle value longer. It'll reduce your yearly cost of light.

It has many other advantages. For one thing, with the new 90-watt, the ballasts run cooler because of lower wattage loss. But why not write us for more information. Just mail the coupon, or call your nearest Westinghouse Lamp Sales Office.

WESTINGHOUSE LAMP DIVISION, BLOOMFIELD, NEW JERSEY

TUNE IN ON HISTORY! Only Westinghouse brings you complete coverage of four-month political campaign over CBS television and radio.

#### **NEWS FROM** WESTINGHOUSE, THE FASTEST-GROWING LAMP MANUFACTURER

by Sam Hibben



HOW BRIGHT IS LIGHT? The "level" of illumination in offices and schools is usually around 25 footcandles: June sunlight outdoors is nearly 9,000 footcandles! Compare it this way: At least 950,000,000 light bulbs are sold each year, averaging about 89 watts. Perhaps three billion are available in the U.S. for use at any one time. Now! If all of them were burned at once, over a flat field, they could equal bright sunlight over less than ten square miles of land!

**EXCEPTION, PLEASE!** Some of those three billion lamp bulbs aren't supposed to give light. For instance, there is the Westinghouse Odorout ozone-producing bulb in which the dim blue light is incidental to the ozone-making waves. Many appliance makers (refrigerators, home freezers, washers) have built the Odorout into their product to purify the air. Westinghouse engineers have cooperated fully with them; such problems are always welcome here at Westinghouse.

COLORED LIGHT: Some jokesterscientists once lit a banquet hall with cadmium vapor lamps which looked normal, but produced mostly red and blue-green light. This turned peas and meat black, milk red, celery pink, olives biue. The guests ato lightly; the fine food tasted awful, several guests were ill. The eyes had won over all other senses combined.

All light has color, of course, and must be chosen with discrimination. Today, fluorescent lights are available in controlled colors. Now, over a dozen different standard colors and tints are available in Westinghouse fluorescent lamns.

Banus gyfille

WESTINGHOUSE LAMP DIVISION Dept. 730 Bloomfield, New Jersey Please send me more information about the new Westinghouse STATE..... BUY NOW AND SAVE! WESTINGHOUSE FLUORESCENT LAMPS STILL COST YOU LESS THAN THEY DID IN 1940, YET BURN SEVEN TIMES LONGER I



Use every inch... stack to the roof, save space, double your storage area. You can do it easily, quickly, economically with a Towmotor fork lift truck. Towmotor handles all types of material. For the name of your nearest Towmotor Representative and a copy of Towmotor's tabloid size magazine on materials handling, write Towmotor Corporation, Div. 2, 1226 E. 152nd St., Cleveland 10, Ohio.



FORK LIFT TRUCKS and TRACTORS

## READERS REPORT

#### Leave Them Lay

Sirs

The story on the Fort MacMurray (Alberta, Canada) tar sands was very interesting [BW—Apr.12'52,p56]. It seems to me, however, that we should just leave them lie (or is it lay?) until needed. They might be considered as food in the frozen food locker, saved safely for the day of need.

NORMAN S. BROOK WINNIPEG, MANITOBA

CANADA

#### Textiles: Overextended

Dear Sirs:

Your very interesting article on textiles, "Textiles' Trouble: Too Much Capacity" [BW—Apr.26'52,p108], suggests to me the time has come for us to realize that all "established" industries are overextended, or soon will be.

We talk a great deal about prosperity and have dreams of profits that can be made with increased production, but too few of us realize that for the past 20 years we have had nothing that should be called real prosperity—that the only type of prosperity we have had has been war-induced (preparation for, operation of, vacuum filling after) or brought about by inflation.

Even those who claim credit for our present prosperity (?) disavow war and

inflation.

Fifty years ago, on the farm we never knew depression—the opposite of prosperity; when we were not sowing or reaping, we had jobs in the woods or something or other. The farm industry was basic in the fashioning of our great America. A hasty study of the pyramids of Mexico would indicate they were built to use up billions of manhours that would have otherwise spelled overproduction (depression).

Is it not time some of our planning economists get busy and plan some "wood-lots" or "pyramids" for America, using some other plan than was used in the early 30's?

CHARLES N. THOMPSON BUCK HILL FALL, PA.

#### Not First at All

Dear Sir:

As a graduate of Carnegic Institute of Technology Graduate School of Industrial Administration, I am considerably impressed with the inaccuracies of your report concerning the new graduate school at Mass. Institute of Technology. First, of course, MIT is not blazing a trail; second, neither the size of the grant nor the scope of the ideas dwarfs or in any way surpasses



# SAVES TIME IN ASSEMBLING TIMERS

AN APPLICATION OF KELLER AIR TOOLS

This air-powered Keller Screw Driver with pneumatic pickup is just one of dozens used in manufacturing timers for electric ranges, refrigerators, automatic washing machines, and many other domestic appliances.

It ald atil as

ich ug. us ushe. be but ast hat hat ad or, or nic nd ver OS-

or or

the

iev

an-

led

ing

me

ca,

sed

ON

ute In-

leries ew of

is her of

952

Timers consist of many intricate parts fastened together with tiny screws. To pick up and turn down these screws by hand would be a tedious, endless job—and an expensive one.

This manufacturer learned long ago the economy of using Keller Air Tools for his assembly operations. His current models have never been assembled any other way.

"Why Keller Air Tools?" he

was asked. "Because our years of experience have shown us they can be depended on to do their work quicker, better, and with fewer interruptions for service."

You will find these and other Keller Air Tools at work in hundreds of plants—drilling, grinding, hoisting, riveting, driving screws, and setting nuts—making tough jobs easy and reducing costs.



Air Tools engineered to industry

KELLER TOOL COMPANY, GRAND HAVEN, MICH.

AIR MOTORS . AIR HOISTS . AIR HAMMERS . COMPRESSION RIVETERS . GRINDERS . DRILLS . SCREW DRIVERS . NUT SETTERS



the scope of the same items at Tech. I think that you published an article two years ago claiming these same "firsts" for Carnegie Tech that you now claim for MIT.

E. F. EISEMANN

GULF OIL CORP.
PITTSBURGH, PA.

• Reader Eisemann is right. BW should have mentioned its earlier story on CIT (BW-Sep.17'49,p74).

#### **Pirating Engineers**

Gentlemen:

In your article (on exemptions for engineers from salary ceilings), you stated that the Senate Banking & Currency Committee had slipped an amendment into the Defense Production Act Extension Bill that would lead to pirating in the field of engineering services. With this statement of opinion, I was thoroughly in accord, as I believe every manufacturer who employs engineering labor would be. It was my interpretation that this amendment . . amendment . . . would apply to so-called professional engineers who were working for engineering companies. The logic of this exemption no doubt stemmed from the fact that doctors and lawvers were not limited in their fees. Obviously, I would have no objection to the removal of any limitations from the fees of a professional engineer.

On the other hand, salaried employment by engineers should be under the same restrictions as when those engineers work for an industrial company. Otherwise, pirating . . . will result. I say this as a licensed professional engineer . . . and as a graduate engineer functioning as the general manager of a very technical business.

On Apr. 10 I wrote to Sen. Irving Ives to request his opposition to this bill and ... (he answered): "The bill has not been passed, but the amendment ... has been agreed to by the committee. In fact, your opposition to the amendment is the only opposition of which I am aware."

It seems to me, if other manufacturers who employ engineering labor realize this situation, they should protest the passage of this amendment unless my interpretation of it, which I think parallels that of BUSINESS WEEK, is wrong.

EARL A. WILLIFORD VICE-PRESIDENT, GENERAL MANAGER LINK AVIATION, INC. BINGHAMTON, N. Y.

Letters should be addressed to Readers Report Editor, BUSINESS WEEK, 330 West 42nd Street, New York 36, N. Y. The bag that breathes to bring YOU better coffee



ONE of the most difficult products to package properly is coffee. The trick is to keep flavor-stealing oxygen from getting in, while permitting carbon dioxide to get out.

The answer is the PLIOFILM lined bag you see here—now being used successfully by many coffee roasters.

For PLIOFILM allows the bag to breathe. By keeping air out, by letting CO<sub>2</sub> escape, PLIOFILM preserves

coffee taste and aroma far longer. In fact, with the supply of tin getting shorter, it is an excellent and economical replacement for vacuum tin packaging.

Is your product one that might benefit from such airprotection? Could it use the many advantages found in PLIOFILM?

PLIOFILM is air-moisture-liquid-proof—seals wanted moisture in, unwanted moisture out. It has dimensional stability, doesn't pucker or shrink. It is hard to tear, split or puncture—won't shatter or run. Because it is so strong and durable, it eliminates repackaging, gives lasting protection. Its gleaming transparency flatters any product, speeds inspection and sales.

PLIOFILM is adaptable to all types of machine packaging. It also heat-seals readily with hand tools in packaging at store level.

Want to hear more? Fill out the coupon below and we'll mail you—free of charge—a copy of "Plain Facts About PLIOFILM"—a booklet that tells you all you want to know about this moistureproof, transparent film.

Finding, a cutder indrechtenide.

T. M. The Goodrear Tire & Rabber Company, Akron, Ohio

GOOD THINGS ARE BETTER IN

Pliofilm AG

GOOD YEAR PACKAGING FILM

GOODYEAR, PLIOFILM DEPT., AKRON 16, OHIO

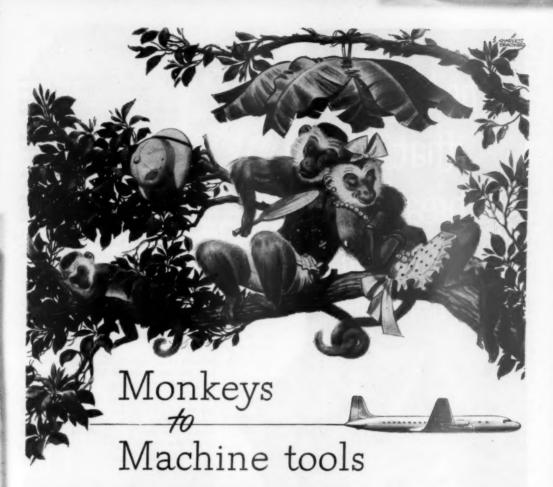
Please send me free copy of "Plain Facts About PLIOFILM."

Name\_

Firm

Address

City and State\_\_\_\_\_



# NEW DOUGLAS AIR FREIGHTERS provide even swifter...lower cost delivery of air freight

• Swift lift for larger loads – that's what the new Douglas DC-6A Liftmaster is providing now! Already the Korean Airlift has underlined the vital role of Douglas transports in supplying the fighting front. At home, air transport is also proving invaluable in the movement of critical materials, machinery and instruments to keep defense operations in high gear. As more and more Douglas DC-6A's enter the service of leading airlines, businessmen will find new economies in extending their use of air freight. Douglas Aircraft Company, Inc.





here's an art to special steel, too

Sensitive handling, attention to the smallest detail . . . these are some of the traits of manufacture that make Crucible steels different from common steels.

What are some of these special steels? Let's look at the automobile you drive: Crucible supplies special alloys for gears, axles, valves, valve tappets, tie rods, springs, bolts, forgings, steering knuckle - and even the trim. Crucible tool steels help press and form the body, while Crucible high speed steels help cut the super-precision parts for the motor and bearings.

The automobile is but one example of Crucible's specialized skills at work. Multiply this knowledge by the needs of all industry, and you can readily see what a wealth of experience Crucible makes available to you. When your need is a specialty steel - call on us.

first name in special purpose steels

52 years of Fine steelmaking



# In BUSINESS this WEEK ...

#### · Going Strong . . .

major question: the outlook. And most forecasters split sharply as to whether the trend will be up or down in months ahead. Here's how the prospects line up.

P. 29

#### · Biggest Thing . . .

... in 50 years. That's what a metallurgist says of a new process to refine metals chemically. Developed by Chemical Construction Corp., it will sharply boost U.S. supplies of nickel, cobalt, other critical metals. P. 52

#### Take the Traffic . .

solution Los Angeles can see for its highway bottlenecks. Three overhead transit systems are trying hard to get franchises.

P. 134

#### Off to a Fast . . .

. . . start, educational TV stations will be on the air this year. But there are few answers to the big problem: What will they use for programs—particularly in the evening when they compete with commercial stations? P. 182

#### Looking Abroad . . .

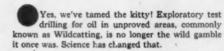
branches in Cuba and Australia. But that doesn't mean the biggest ranch won't also expand in Texas. P. 192

## THE DEPARTMENTS

Business Abroad
Business Outlook
Commodities
Communications 77
Companies
Defense Business 144
Education
Farm Business 190
Figures of the Week
Finance 148
Industry 96
International Outlook
Labor 164
Management
Marketing 39
The Markets
New Products 68
Production
Promotion
Readers Report 8
Transportation
The Trend 196
Washington Outlook 23

# We've taken the "WILD"

out of Wildcatting!



For example, of the 639 wells completed last year by Phillips Petroleum Company, 40 were Wildcats. And these 40 Wildcat wells resulted in the discovery of six new oil fields, four gas-distillate fields, and new deeper-producing horizons under two existing fields, for a productive ratio of 30% compared with 17% for the entire oil industry.

Thanks to improved techniques in geological exploration, including the use of the seismograph to map potential oil and gas formations, the Wildcatter can today commence drilling with far greater prospects of success than ever before.

As a result of successful test drilling Phillips Petroleum Company, in 1951, added to its underground reserves of oil to an extent substantially exceeding the year's withdrawals.

Upon the successful search for new reserves of oil depends the future of our national economy.

## PHILLIPS PETROLEUM COMPANY

Bartlesville, Oklahoma

We Put the Power of Petroleum at America's Service





This Unfair Competition for your Profits hits ABOVE the Belt!

Industrial Eye Accidents

Cost 110,000,000

Man-Hours in Lost

Productive Time ALONE

In addition to productive time lost, one plant eye injury can cost well in excess of \$1,000 in compensation and medical services. "It can't happen here," you may believe, but have you taken all possible precautions? 98% of eye accidents are preventable when workers wearsafety goggles averaging only \$2.30 in cost.

Contact the nearest AO Safety Products Representative for facts and figures that prove an eye protection program pays for itself many times over. Or write American Optical Company, 414 Vision Park, Southbridge, Mass.

AO's Industrial Vision Program Increases Production, Decreases Accidents. Write today for booklet "Improved Industrial Vision."

\*Estimate. Industrial eye injuries cost over \$5 per employed worker per year.





# BUSINESS OUTLOOK

BUSINESS WEEK MAY 17, 1952



Employment this year is making a relatively poor showing.

And this may reflect more than just spotty business conditions: It seems to indicate that we have been having "overemployment" rather than "full employment" during most of the postwar era.

Jobs aren't too easy to get right now. That much we know.

Total employment and manufacturing employment are little changed from a year ago. After all, production is just about where it was last year.

You would expect, under these circumstances, that unemployment would be up. For the labor force grows from year to year, raising the number of job hunters.

But note this: Unemployment is LESS than a year ago.

Here's the best reason for thinking more people have been working than wanted to or needed to: The labor force hasn't grown in a year.

That means withdrawals have matched the number of new workers.

(Failure to grow could be attributed to takings by the armed forces—but the number under arms hasn't risen much in the last year.)

Two figures point up the queer goings-on in the labor market:

Unemployment in April, at 1,612,000, was more than a hundred thousand below a year earlier. But compensated unemployment, at 1,172,-000, was up by a quarter of a million.

For total unemployment to be down while compensated unemployment is up, a great many people not entitled to payments must have gone home.

Many reasons may be cited for people leaving the labor force: They get older; jobs are harder to find; prices are declining so the need for multiple incomes per family is less; the patriotic urge is blunted.

All these reasons exist now. Presumably, they help explain why "extra" workers have quit the labor force. And this very situation tends to prove the basic contention:

We have had "overemployment" most of the time for several years.

Unemployment remains too low for the work force to have flexibility.

Any time the jobless total is less than 2-million, even common labor is scarce. Many employers must tend to hoard skills. And certainly the labor unions are in the driver's seat in wage negotiations.

More workers can be had, to be sure. But only at considerable cost. And they probably wouldn't be of the skills most desired.

There's no assurance against inflation like a pool of genuine unemployment. That's a blunt, hard-hearted statement, but a fact. Many Europeans have been wishing covertly for a little more unemployment as an aid in the fight against their postwar inflations.

Full employment defies definition, but the country certainly isn't suffering much with jobs totaling a shade over 60-million.

The rise from January to April of 400,000, however, may be disappointing. The gain was 1-million in the same period a year ago.

Nevertheless, nonfarm jobs are about 300,000 above last year. The

# BUSINESS OUTLOOK (Continued)

BUSINESS WEEK MAY 17, 1952

fact that total employment is up by only about 100,000 in the same period is due to the steadily declining number of jobs in agriculture.

Wages and salaries paid to workers have risen, though slowly, since the first of the year.

Payments recently have been at a rate of more than \$177-billion annually—about \$11-billion better than a year ago.

That's pretty good when you consider that (1) employment is up only a little in this period, and (2) hours worked per week are lower.

Business activity may be picking up slightly right now (page 29).

Such signs as have appeared are still inconclusive—somewhat better sales here, a slight price stiffening there. It's no cinch that this is not just another of the frequent false glarms.

Yet store sales are running equal to a year ago—or even a little ahead—in dollar volume. On a unit basis, they are comfortably ahead.

For each favorable sign, an adverse business factor can be found.

Steel output has nudged above 100% again. Electric power output has widened its gain over a year ago to above 7%. Knit underwear makers cite improvement. Mengel Co. reports better furniture bookings.

But there are new cuts in the output of refrigerators. Some office equipment lines are less active. Cluett & Peabody has closed four shirt plants. Prices of rugs, nylons, and industrial alcohol have been cut.

And the Federal Reserve says total output in April was down about 1% from March (though at least half the drop reflects steel troubles).

Removal of all restrictions—including the high down payments prescribed by Regulation X—now is the aim of the housing industry.

Builders are making quite a record, though, despite restraints.

New dwelling units started in the first four months of 1952 apparently fell only a trifle short of 350,000. That very nearly matches the 356,000 started in the same period last year.

Better-than-expected building should help home furnishings sales.

Stores found these goods among their most disappointing lines early this year. Sales were down 19% from a year ago in the first quarter.

Inventories have been pulled way down, though, bettering the salesstock ratios. This is notably true in radio and TV sets with stocks down 60%; the sales-inventory ratio is under 3 times vs. 5½ a year ago.

Natural rubber will cost less after June 1. The government is cutting its selling price from  $48\frac{1}{2}$ ¢ a lb. to 38¢. But that's still close to 10¢ a lb. higher than the futures market is guessing for September.

If you are planning to issue new bonds, keep an eye on the market.

This goes for either corporate finance officers or treasurers of municipalities. The exceptional volume of new issues recently has caused some piling up in dealers' hands.

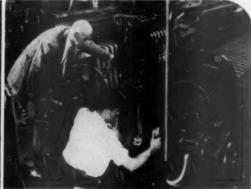
This "float" could be moved—at a price. But underwriters aren't cutting yet; they hope the market's rising trend will help clear shelves.

Catholic contribute under the sengral contribute on the Naz 17, 1982, January Business West, 130 W. 42 and 85, New York, N. Y.





Gulf's trained specialists, available through Gulf Periodic Consultation Service, have had years of successful experience in solving lubrication problems in the woodworking industries.



Textile mills of every type benefit by the adoption of Gulf Periodic Consultation Service. They get better lubrication, better machine performance, lower power and maintenance costs.

# ... industry cuts costs through

# **GULF PERIODIC CONSULTATION SERVICE**

Often overlooked in continuing efforts to step up production and reduce operating costs are the improvements in efficiency that are possible through petroleum science.

As a convenient source of practical assistance on every phase of petroleum science, Gulf offers its famous Periodic Consultation Service. This advanced plan makes available to you the cooperative counsel of experienced sales and staff engineers on the selection and application of lubricants, fuels, rust preventives, solvents, waxes, cutting and special process oils.

Their recommendations and suggestions nearly always result in low-cost operation—and that's exactly what they have constantly in mind!

Gulf Periodic Consultation Service is available to mines, quarries, plants, railroads, contractors, fleet and marine operators from Maine to New Mexico. Send the coupon for copy of a booklet which gives complete information on this helpful service.



Gulf Oil Corporation • Gulf Refining Company 719 Gulf Building, Pittsburgh 30, Pa.

Please send me without obligation a copy of your booklet "Gulf Periodic Consultation Service."

Name.....

Title

Address

# : ALCOA ALUMINA FOR FINE GRINDINGS



Long the symbol of prescription druggists, the mortar and pestle represents fine grinding—and fine grinding calls for Alcoa Alumina.

It is no coincidence then, that Coors Porcelain Company, Golden, Colorado, chose ALCOA Alumina as the main component of their new mortar and pestle. Completely vitrified and non-porous, the alumina surfaces are extremely resistant to abrasion . . . unaffected by tungsten carbide scribers . . . only slightly scratched by diamond. ALCOA Alumina is especially suited to this product because its purity and hardness (9 on Moh's scale) permit extra fine grindings without fear of contamination.

ALCOA Alumina is aluminum oxide, a crystalline material with very sharp edges and corners. It is from this characteristic that alumina derives its value as an outstanding, fast-cutting abrasive.

ALCOA Alumina is only one of the versatile ALCOA Chemicals used throughout industry to make better products do a better job. Electrical insulators . . . high-temperature refractories . . . grinding balls . . . rubber . . . glass . . . are but a few of the hundreds of products which have been measurably improved by ALCOA Chemicals. Perhaps they can benefit your product. Write to: ALUMINUM COMPANY OF AMERICA, CHEMICALS DIVISION, 600E Gulf Building, Pittsburgh 19, Pennsylvania.

Alcoa Chemicals



ALUMINAS and FLUORIDES

# FIGURES OF THE WEEK

- 1923-25=100 	1923-25=100
)——————————————————————————————————————	~~~
	THE PERSON NAMED OF THE PE
~~ /	
	1952
V	HIIIIIIIlaalaalaalaalaalaalaalaalaalaalaalaa

n . w 1 1 1	§ Latest Week	Preceding Wesk	Menth Ago	Year Ago	1946 Average
Business Week Index (above)	*234.1	+229.8	230.1	230.3	173.1
BRODUCTION					
PRODUCTION					
Steel ingot production (thousands of tons)	2,084	11,775	2,038	2,077	1,28
Production of automobiles and trucks	131,434	1128,385	123,180	158,502	62,88
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$52,460	\$50,395	\$45,037	\$43,558	\$17,08
Electric power output (millions kilowatt-hours)	7,030	16,949	7,154	6,567	4,23
Crude oil and condensate production (daily av., thousands of bbls.)	N.A.	6,296	6,366	6,162	4,75
Bituminous coal production (daily average, thousands of tons)	1,425	†1,625	1,537	1,618	1,74
TRADE					
Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)	73	75	77	79	8
Carloadings: all other (daily av., thousands of cars)	51	55	41	55	5
Department store sales (change from same week of preceding year)	-2%	++3%	+7%	+9%	+309
Business failures (Dun and Bradstreet, number).	161	150	184	181	21
PRICES					
Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	434.2	433.0	433.3	501.9	311.
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100)	278.3	280.2	282.1	354.2	198.
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100)	345.2	338.5	338.1	398.3	274.
Finished steel composite (Iron Age, lb.)	4.131¢	4.131¢	4.131¢	4.131¢	2.686
Scrap steel composite (Iron Age, ton)	\$42.00	\$42.00	\$42.00	\$43.00	\$20.2
Copper (electrolytic, Connecticut Valley: lb.)	24.500¢	24.500¢	24.500¢	24.500¢	14.045
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	\$2.48	\$2.48	\$2.50	\$2.40	\$1.9
Cotton, daily price (middling, ten designated markets, lb.)	38.90¢	138.41¢	41.25¢	45.22¢	30.56
Wool tops (Boston, lb.)	\$1.85	\$1.85	\$1.85	N.A.	\$1.5
FINANCE					
90 stocks, price index (Standard & Poor's)	188.9	187.2	189.7	175.6	135.
Medium grade corporate bond vield (Bas issues, Moody's)	3,49%	3,50%	3,49%	3,39%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	21-21%	21-21%	21%	2-21%	1-19
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks	51,887	52,303	51,176	49,574	††45,21
Total loans and investments, reporting member banks	73,168	73,333	72,917	69,392	++71,14
Commercial and agricultural loans, reporting member banks	20,723	20,796	21,049	19,164	119,22
U. S. gov't and guaranteed obligations held, reporting member banks	31,389	31,456	31,006		1149,20
Total federal reserve credit outstanding	24,067	23,632	23,393	23,706	23,88
MONTHLY FIGURES OF THE WEEK		Latest Month	Preceding Month	Year Ago	1946 Average
Personal income (seasonally adjusted, in billions)		\$257.8	\$258.3	\$245.5	\$177.
Farm income (seasonally adjusted, in billions)		\$19.6	\$20.4	\$20.2	\$18.
Exports (in millions)		\$1,416	\$1,330	\$1.285	\$81
Imports (in millions)		\$962	\$892	\$1,102	\$41
Housing starts (in thousands)		108.0	98.0	96.2	55.5
Bank debits (in millions)			\$139,974		\$87,507
Preliminary, week ended May 10, N.A. Not available,			Revised		7
	-	Latest Week" on each series on request			



## "DOCTOR, WILL THEY HIRE ME BACK?"

"I need the job! Sure, my leg's all bashed in — and I'm 62 years old. But with my experience as a toolmaker in that shop, I can do more work on one leg than some youngsters can do on two. Think they'll give me my old job back?"

To help policyholders keep skilled workers like this on the job, Liberty Mutual has a two-way solution:

First, services are available when needed to help a man regain the greatest possible physical ability—through special medical treatment, through rehabilitation, or both.

**Second**, we help a policyholder fit the man to his job, or the job to the man. This can keep a skillful — and therefore valuable—man producing to the best of his physical capacity.

Everybody gains. Liberty Mutual has proved repeatedly that skilled workers, even though aging or handicapped, are less liable to accidents and more productive — if properly placed and adjusted to their jobs.

This is one more way that Humanics works to prevent accidents or to reduce disability and loss from accidents. It includes Industrial Engineering, Industrial Hygiene, Industrial Preventive Medicine, Claims Medical Service and Rehability

tation. It works to reduce insurance costs by seeking and combating all causes of loss.

A booklet, "Humanics", tells more about what the program can do for your business. Just write to Liberty Mutual, 175 Berkeley St., Boston 17, Mass.



Better Compensation Insurance Protection at Lower Cost through HUMANICS

# WASHINGTON OUTLOOK

WASHINGTON BUREAU MAY 17, 1952



The shucking off of controls is proceeding faster than had been expected (page 30). Here are the reasons:

Defense production isn't cutting the butter out of the economy. Spending for the year ending June 30 will be \$4-billion less than Truman figured in January. That means more of everything for civilians.

The soft spots in business aren't firming as forecast. That's why instalment credit control—Regulation W—was lifted, as a stimulant.

Then there are the political considerations. If the Administration shows it will lift controls as the need for them disappears, Congress will be more willing to extend the control powers.

Congress is in a rebellious mood. It would let all controls expire June 30, except for the fear of political results if prices should rise.

A short extension, with limitations, may be the compromise. Chances are that this extension will be for no more than nine months. That would give the new Administration that comes in next January until Mar. 31 to get still another extension, if it feels that's necessary.

You can anticipate further relaxations this summer and fall.

Metals for nonessential uses will be increased, starting in July. And there's a chance of almost unrestricted use by September. The exception is copper.

Construction will benefit. Recreational projects will be allowed small amounts of steel, aluminum, and copper. By fall general and commercial construction will be permitted freer use of controlled materials.

Curbs on home mortgage credit will be lifted. The expectation is that by fall Regulation X—requiring big down payments—will be removed.

The Controlled Materials Plan is ticketed to disappear Jan. 1 as far as most metal users are concerned. After that, there'll be a priority system for defense, with civilian producers left free to compete for whatever metals they can get.

The metals outlook gets better all the time. Supplies are rising. That's one factor. Another is that defense takes less than scheduled. Here's a rundown:

Lead: Controls over its use just about disappeared this week.

Zinc: Shortages are just about a thing of the past.

Bismuth, cadmium, antimony: Supplies are catching up with demand.

Tin: More will be available for toy makers and jewelers.

Copper: Long-term prospects still aren't too bright. But Washington seems to think the situation is easing.

The Supreme Court and steel: A decision is expected in a week or so on the legality of seizure. But in your planning, don't overlook this fact: Steel wages and prices will rise no matter how the court rules. Steel is a bellwether; what happens to it will influence wages and prices in aluminum and other metals, and in coal, where John L. Lewis is biding his time.

Corruption in government: The Senate delay in confirming McGranery as attorney general is another excuse for the cleanup bogdown.

# WASHINGTON OUTLOOK (Continued)

WASHINGTON BUREAU MAY 17, 1952 Ambassador O'Dwyer may stay in Mexico. His assignment ends in January. But word here is that the ex-mayor of corruption-troubled New York City plans to go in business below the border rather than return home.

Radio, TV, and comics for kids are in for Congressional criticism. Behind the House investigation is a strong feeling that the heavy diet of sex, robbery, and murder contributes to juvenile delinquency.

Penalty tax on undistributed profits (Sec. 102): No more copies of the report prepared for O'Mahoney's joint economic committee are available (BW—May3'52,p25). The committee got several thousand more requests than it could fill. Its plan is to have the report published as a public document, with plenty of copies for all. If this goes through, we'll let you know how to get copies.

Publicity for disputed tax returns is a Bureau of Internal Revenue plan. The idea is to publish the names of all taxpayers whose returns are forwarded to the Justice Dept. for legal action. This is supposed to combat charges of lax prosecution.

But note the opportunity for abuse. A taxpayer having a dispute with the bureau might be willing to pay off rather than face publicity, no matter how good a case he has. Congress may block the scheme.

Flag-waving for the reorganization of the BIR will start in Chicago May 20. That's when the first civil service director takes over a district office under Truman's reorganization. Tax lawyers and accountants will have an opportunity to question the director on new procedures. Any weak spots they detect will be corrected before other offices open.

Pay raises for steel company executives: Murray of the CIO prodded the Salary Stabilization Board into asking reports from 30 companies. So far, the board hasn't found a single increase it can disallow.

Government-owned electric power: Temporary mobilization agencies have tried to hold a neutral line on this issue. But cuts in public power by Congress are so steep that the mobilizers are stepping in and asking Congress to relent.

Minimum wages: The statutory rate under the Fair Labor Standards Act is 75¢. But the government is pushing it higher for many employees.

The elevator is the Walsh-Healy Act, which regulates wages on contracts let by the government. The general idea is that the prevailing rate will be paid. But Secretary of Labor Tobin is giving this a liberal interpretation. He's ruling, in effect, that "prevailing rate" means the rate in an industry, not in a locality. The result is a pushing-up of the minimum wage scale. And on top of it all, Tobin is proposing that prime contractors see to it that their subcontractors meet the minimum. That's one reason subcontracting is becoming more difficult. It upsets wage rates.

Taft's drive to stop Eisenhower will go into high gear in June, as soon as the general comes home. The strategy will be to smoke him out on various issues on the theory that the stands he takes, no matter what they are, will cost him popularity.

A Stevenson-Russell ticket figures more and more in Democratic speculation. It would make a hard-to-beat combination. The big hitch is the Illinois governor. He's still resisting pressure to become a candidate.



#### AT HOME . . . ABOVE DECK OR BELOW

Sperry Radar gets a routine check. A Sperry Service Specialist is adjusting intensity of the sweep to improve contrast.

Here you see a typical Sperry marine service engineer boarding a modern passenger-cargo vessel to check her Sperry installations.

He is one of the many Sperry Service Specialists whose sole responsibility is to see that Sperry marine equipment operates at maximum efficiency and economy.

Sperry Service Specialists are equally at home on the bridge, in the pilothouse or "below"—on any type of vessel from seiner to ocean liner, freighter to tanker-workboat or pleasure craft.

Besides keeping these service engineers

on call in major ports around the world

-Sperry maintains schools to train customers' personnel in the care and operation of Sperry marine equipment.

Whatever the Sperry installation . . . radar, loran, Gyro-Compass, Gyro-Pilot\*, Magnetic Compass Pilot or

electro-mechanical steering system . . . you, as a Sperry customer are assured of a precision product, serviced for top performance.

Our Marine Department or nearest district office will be glad to supply further information.

...



GREAT NECK, NEW YORK: CLEVELAND - NEW ORLEANS - BROOKLYN - LOS ANGELES - SAN FRANCISCO - SEATTLE IN CANADA-SPERRY GYROSCOPE COMPANY OF CANADA, LIMITED, MONTREAL, QUEBEC

# raise unit output Cut unit costs

It's being done every day with the help of superior quality Texaco lubricants recommended by skilled Texaco Lubrication Engineers.

HERE'S A STRIKING EXAMPLE. General-Shea-Morrison Company, Contractor, HUNGRY HORSE DAM, Hungry Horse, Montana, says—"At Hungry Horse only 6 Texaco Products handled all our major lubrication. The time and confusion saved by Texaco Simplified Lubrication Plan are incalculable. The Texaco Lubricants used at Hungry Horse Dam were a big factor in keeping our equipment on the job and our maintenance costs low."

THE TOUGH JOBS GO TO TEXACO. Here are more outstanding examples where Texaco is preferred.

MORE

revenue airline miles stationary diesel horsepower copper mining equipment railway locomotives and cars

are lubricated with Texaco than with any other brand.

ONE PURCHASE AGREEMENT PLAN brings you skilled engineering service that can help raise unit output and lower unit costs. For details call the nearest Texaco Distributing Plant or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.



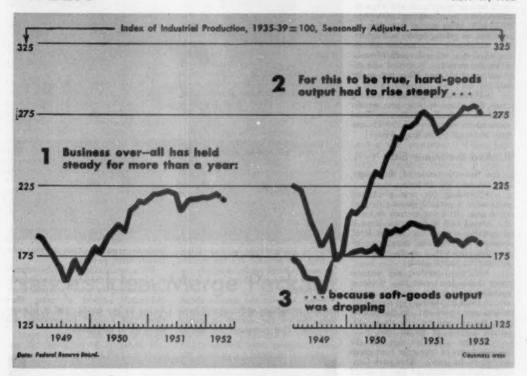
A. E. McCloud Photo-Bureau of Reclamation

BUILDING HUNGRY HORSE DAM, Hungry Horse, Montana; Equipment included 24 Diesel-powered Euclids; 9 Caterpillar tractors; 5 Northwest shovels; 27 International Harvester trucks; 8 Reo 55-passenger buses.

THE TOUGH JOBS GO TO TEXACO

TEXACO





# Will Business Go Up Now?

Bits and pieces of evidence have been accumulating for several weeks now. They suggest that:

The 1951-52 slowdown in business has just about run its course.
 The U.S. economy still has at

 The U.S. economy still has at least one more thrust of inflation in its system.

 This new inflation will hit production and prices in the second half of this year.

• What Inflation?—That isn't the way most businessmen see it, of course. The majority of manufacturers, wholesalers, and retailers are worrying about a recession—a further dip in business that would carry production well below last year's levels and kick prices back to where they were before the Korean War.

To these businessmen, the clincher is the government's sudden decision last week to drop consumer credit controls. It confirms their fear that deflation rather than inflation is the big danger.

The fact is that nobody can make a prediction that is worth much at this particular time. The United States has arrived—somewhat sooner than expected—at one of those forks in the road where business could logically turn either way.

As a result of the stretchout in the defense program, military expenditures are rising more slowly than the original timetable prescribed (BW-Feb.16'52, p.21).

And as a result of Washington's stress on expansion, the country's industrial plant has grown faster than most forecasters expected.

Put these two facts together, and you come up with a third: The military program is no longer a guarantee in itself that business will run at full blast. We are in a position to meet the demands of a garrison state and maintain a normally fluctuating civilian economy on top of it.

Heavy military spending makes it certain that there will be no major recession. But it won't keep industry going at full capacity unless there is heavy civilian spending, too.

#### I. The Plus Side

In a situation like this, there is no automatic answer to give the man who argues that the mild downtrend in business will run on indefinitely. It well might.

But when you count up the pluses and minuses, you have to take account of these important points:

• There are signs that commodity prices are already picking up. True, the metals are easing off, reflecting a better supply situation (page 161). But such weak sisters as hogs, wool, and hides seem to have dragged bottom and started up again.

• The Treasury has just begun to

borrow the new money that it will need to finance the government deficits this year and next. Up to this point, defense spending has been pay-as-you-go.

· For some time, consumers have been buying at a faster clip than retailers have been ordering (BW-Apr. 19'52,p17). This means that store inventories are getting lighter and lighter.

· Consumer incomes are still rising. And they will take another bounce when the steel case is settled and another round of wage hikes gets under

· Home building is off to a racing start this year. It may get another boost soon if the Federal Reserve Board eases up its Regulation X, which controls mortgage credit (page 34).

#### II. And the Minus Side

On the other side of the ledger, you can set these factors:

· Spending for new plant and equipment is probably passing its peak right now. It is due to turn down in the second half of this year. Even if it remains around the present level. business will lose the stimulating effect that goes with a rapidly expanding demand for capital goods.

· Military spending will increase more slowly from now on. Defense spending is now running at an annual rate of about \$50-billion-up about \$20billion over a year ago. In the coming year, the rise will be only about \$12billion in terms of annual rates.

· There is still no sign that the manufacturers of consumer hard goods are out of the woods. This week General Electric announced that it would close its refrigerator and food-freezer plant at Erie, Pa., for eight weeks out of the next three months to cut inventory. At the same time, Frigidaire Division of General Motors announced price cuts of \$20 on refrigerators and \$20 to \$59.75 on freezers.

#### III. And on Balance

To figure out what all this means, you have to take a look at just what has been happening to business in the past

year or so (charts, page 27).

Total industrial production shot up fast after Korea, leveled off early in 1951, and has stayed practically flat ever since. The only sizable wobbles that the Federal Reserve index shows are statistical rather than real-not enough seasonal correction in the summer of 1951.

But this stability in the over-all index masked a see-saw motion within industry. Hard goods production-with defense orders driving it-climbed up to new records. Soft goods production started drifting off early in 1951. For industries like textiles and leather, the

drop was sharp enough to hurt. Defense spending or not, there was no boom for them last year.

· Churning-Even the hard goods index covered up a lot of churning around. Military production kept the index climbing. But demand for consumer hard goods-refrigerators, television, and even automobiles-turned sour in 1951. For a year now, appliance makers haven't been able to use all the metal the government controllers allotted them. And in the past couple of months, rumors have been going around Detroit that the auto manufacturers weren't picking up all their tickets for copper, which is currently the bottleneck metal.

• The Consumer-Through all this, consumer income has been rising; even after taxes, it is now up about 5% over a year ago. The gross national product-the total value of all goods and services produced-has been going up. And consumers, by and large, have been saving more money than you ordinarily would expect them to save at

these income levels.

It's easy to overrate consumer saving, though. Actually, consumers have been spending pretty freely on such things as food and services. It's the markets for manufactured goods, especially textiles and appliances, that have felt the worst pinch.

· Swing Man-In the months ahead, the rise in military spending will more than balance the decline in capital spending. That guarantees the defense industries that they will keep booming.

But there is no similar guarantee for civilian industry. And as things stand now, civilian industry has to come to the party if there is going to be a boom.

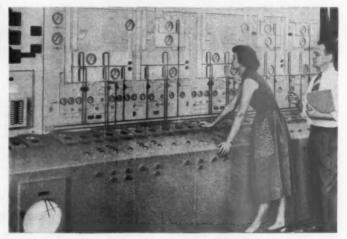
And so, obviously, the consumer holds the key to what is going to happen to business from here on. . If he unzips his wallet and starts buying, the boom will be on again. If he sits on the savings he has been piling up, the slow downward drift of business probably will continue.

You don't have to be much of an optimist to argue that the bullish signs of the past few weeks will do a lot to nudge the consumer back into a buying mood. The end of credit control, for instance, will undoubtedly bring major appliances and autos back within the reach of a lot of potential buvers who couldn't carry the monthly payments on the old basis. And even a moderate stiffening in prices could bring in the buyers who have been holding off in the hope that prices would come down.

· Boom-With inventories slimmed down, a sudden rush of consumer buying would kick back at once on prices. Spot shortages would show up. And business would be back on the infla-

tionary merry-go-round.

It's a convincing prospect-certainly as plausible as the idea that consumers will continue to pile up liquid assets indefinitely instead of using their money to buy goods. And it is something that a smart businessman will allow for in his planning.



## Clearing the Air in the White House

This electronic control panel is part of the \$5-million modernization of the White House. It regulates air-conditioning units for all parts of the executive mansion. Designed by Honeywell-Brown, the board

monitors the action of 106 thermostats that control the year-round air-tempering system. The makers believe it's the most elaborate temperature and humidity control ever installed in a residential building.



PACKARD'S NEW PRESIDENT is significant to auto men. For here's . . .

# Nance's Idea: Merge Packard

## A Nash-Packard deal might make Big Three a Big Four

James J. Nance, this week, is resigning the presidency of Hotpoint, Inc., to become president of Packard Motor Car Co. For the auto industry, the significant thing about the shift doesn't show in the announcements. It's this:

Nance intends to make Packard the nucleus of a big new auto companybig enough to join the Big Three-General Motors, Chrysler, and Ford-in a new Big Four. Nance's idea is to merge Packard with one or more of the other independent auto producers, most likely Nash-Kelvinator.

It was on the understanding that he could tackle something like this that Nance took the Packard job.

· At Home-Such a merger would give Nance a big company with: (1) a full line of cars, from the very smallestthe Nash Rambler-up to the top of 'Packard's line, which is competitive with the Lincoln Capri, the Chrysler, and the Cadillac; and, (2) a line of appliances.

The latter would make Nance feel right back at home, of course. His background stretches through Hotpoint to Zenith, to E-Z Washer to GM's

Frigidaire.

· Merchandising Man-Packard's decision to offer Nance the job goes back several years. The big stock owners and

the directors of Packard have been getting more and more concurned about the company's position in the industry. In casting about for the solution, they came to the conclusion that a top merchandising man was needed.

Nance was first approached a month or so after the Korean outbreak, but at that time the deal didn't look too good

But shortly thereafter, Nance found out that his position as head of Hotpoint was not going to be a bed of roses. Ralph J. Cordiner was putting together a new kind of setup in General Electric Co., Hotpoint's parent, and the place earmarked for Nance was not to his liking. He did not want to become a staff officer in GE, with a title of executive vice-president and a spot on the second tier of officials. And he preferred to keep on being president of Hotpoint.

But even that was only a temporary proposition; it was practically inevitable that Hotpoint would eventually become just another department of GE and its head man just a department manager.

· Shifts-Meanwhile, Packard was trying to get itself straightened out. In 1950 Leroy Spencer became executive vice-president (BW-Sep.23'50,p28). Spencer, then head man of the California distributorship, was supposed to shore up the sales side of the business. He was also the white hope for successor to Hugh J. Ferry as president.

Since then, however, Spencer has tangled with the Packard directors on one problem after another.

· Hardly Enough-Nance's name came up again. When asked what kind of deal it would take to get him, Nance made it clear that being president of Packard as it is today would hardly be enough. But he would be interested in Packard as the nucleus of a still-to-be-created Big Four member.

That idea was advanced and evidently received favorably by the powers that be, including such big shareholders as the Newberrys and the Macaulays.

Historically, Packard has a fine name and a fine reputation. When highpriced cars were a large percentage of total automobile business, it was in clover. It is the only survivor making passenger cars of the 42 American automobile makers exhibiting in 1900 in New York's first national auto show. But its percentage of the market has

been going downhill for years. When World War II ended, Packard was worse off for steel than any of its competitors. It had relied largely on hand mills for sheet, rather than continuous mills. The hand mills were gobbled up by large consumers trying to protect their steel supply sources. That left Packard in a hole.

· Organization-Gradual reduction of the steel materials problem made other problems more apparent. One was the merchandising problem. But Packard had others, such as the kind of organization it had. Alvan Macaulay had been an outstanding president for years. But there was a growing feeling all around Detroit that he held the job too long. George Christopher did a pretty good job, but he took over the reins at a time when he himself was on the verge of retirement. Ferry, who now becomes chairman of the board and continues as treasurer, was also too well up in years to become the guiding hand of a setup obviously in need of strong direction. To outsiders, at least, Packard looks antiquated from one end of the operation to the other.

· Merger-Putting Packard together with another company would be one way to cure some of the problems, as well as add to the number of dealer out-

lets and widen the line.

Such a union might sound attractive, too, to an outfit like Nash. 'If not, there are other possibilities. The Detroit Athletic Club bar has cooked up many a merger that never came off. But no one should be surprised to learn any day that Hudson, Studebaker, Nash, Packard, or Willys really was involved in a merger made up of some combination of those named.

# Commercial Jets

U.S. may offer subsidy to aircraft makers to help close British lead on jet airliners.

Civil Aeronautics Board has a plan it hopes will enable U.S. jet airliners to catch up with the British. It has asked Congress to grant a \$15-million subsidy to any manufacturer willing to build 15 jet-engine-powered liners.

· All Set-CAB chairman Donald Nyrop sprang the plan at hearings of the Senate Interstate Commerce Committee. The board is afraid that, unless the government takes a hand, U.S. industry can't possibly get such a plane into the air before 1957. The British, on the other hand, are already flying jet passenger airliners. Long before 1957 they'll be covering the world's air routes with Comets, whizzing by at over 500 mph. U.S. Constellations, DC-6's, and Stratocruisers are tin lizzies by comparison-poking along at about 300

• Helping Hand-The CAB plan is not a complete subsidy. The manufacturer would have to make up the difference between the \$15-million and the development cost, which for a jet liner runs between \$20-million and \$40-million. This is how the plan

would work:

The government would "loan" a qualified manufacturer up to \$15-million at 1% interest, payable in most cases within 10 years. But here's where the incentive comes in. If the manufacturer builds 15 planes, he doesn't have to pay anything back. For each of the first 15 planes he builds and sells, the government will chop \$1-million off the debt.

Once an airline or group of airlines starts operating the jeteraft. Washington would underwrite an all-cargo or

mail service for 12 months.

• Why Worry?—The industry views this plan with mixed feelings. Douglas president, Donald Douglas, assured the committee that when jet engines become economical for airline servicearound 1956 or 1957-Douglas will have airframes for them. Both Douglas and Lockheed president, Robert Gross, maintain that government interference would just confuse things and slow down progress. Boeing Aircraft takes a slightly less independent view, feels it wouldn't be above taking a little subsidy.

The airlines' Air Transport Assn. is keeping tactfully silent. ATA figures Congress won't pass such a bill this year, so why ask for a subsidy they

probably won't get.



HENRY H. FOWLER, NEW DPA HEAD . . .

# Sets Target for Civilian

The average businessman probably won't be aware of it, but the government will keep a firm, though velvetgloved, hand on production in 1953.

New Defense Production Administrator Henry H. Fowler-he'll take over the materials and production controls from Manly Fleischmann on June 1-wants to free civilian production from mobilization controls by next January or, anyway, April.

· Standby-However, he plans to keep tight reins on the flow of materials and components into weapons until 1954. And he will maintain most of the mechanics of present controls, including the Controlled Materials Plan, on a standby basis.

Here's why:

· Next year output of arms will

hit their peak for the mobilization period, with deliveries running to more than \$40-billion. Thanks to expansion of productive facilities, materials supplies probably will be adequate for all

· A new military crisis, even resumption of fighting in Korea, would mean a boost in present arms-making schedules. That, too, would upset the balance of materials supply-demand, require stiffening controls, rather than

needs. But the balance is so fine that

bottlenecks are almost sure to crop up.

relaxing them.

· Open-End CMP-In either event, Fowler feels CMP will be a very handy materials-snatching device to have around DPA. That is why he intends to switch from the present system of government allocations of steel, copper,



"After all, it's not DPA's business to keep all the steel mills full of orders..."



"For many jobs . . . the career civil servant simply doesn't have what it takes . . ."

# Decontrol

and aluminum for all substantial uses to a partial, or "open-end," CMP early next year. Then the government will allot metal only for military production, let other users compete for materials in a free market.

This preserves the framework of the best materials control mechanism yet developed. Fowler knows well how long it takes to set up a CMP and put it into operation.

Bitter Knowledge—As assistant general counsel first in the Office of Production Management, then in the War Production Board, from 1941 to 1944, Fowler learned, he often recalls, how long it took Washington to develop the original CMP in World War II. And when he became deputy administrator of the National Production Authority

last September, he found his former WPB colleague and long-time friend, Manly Fleischmann, then head of both NPA and DPA, just getting a new CMP into effect after more than seven months of preliminaries.

Fowler figures that, starting from scratch, it would inevitably take Washington six to nine months to hire the staff and write the orders necessary to set up a new CMP. We just can't afford that kind of time lag until we have a lot more military muscle, he contends.

Not Easy to Relax—The job of loosening production controls bit by bit looms as a tough one. Already, Fowler is under heavy pressure from industry to speed up his timetable.

The steelmakers, for example, have presented DPA with their own schedule for dropping allotments. The industry claims a number of mills are producing more steel than they can dispose of to buvers with allotments.

Fowler discounts these reports as indicative of a kink in demand for certain shapes and forms of steel rather than indication that supply is getting far ahead of demand in general.

"A few mills undoubtedly have had difficulty locating buyers with CMP tickets for some of their production," Fowler says. "But we still aren't producing nearly enough of some other shapes—forgings and castings, plate and rod, for example.

"And, after all, it's not DPA's business to keep all the steel mills full of orders. Our primary interest is in seeing to it that military and supporting-industry requirements for metal are met on time."

• Who Calls the Turn?—Actually, Fowler's own plans for decontrol differ from the steel industry's only in that he insists DPA, rather than the mills, will call the turn on when to remove which restrictions. The time for decontrol, he says, will be when "we find that production of metal substantially exceeds both military and essential civilian demands as we measure them at DPA."

Here are some of the steps Fowler has in mind:

 Starting July 1, he will lift the outright ban on amusement-type construction—bowling alleys, theaters, etc and permit the use of aluminum, now limited to industrial construction, for housing and other types of building.

 Starting Oct. 1, DPA will boost the ceiling on self-authorizations, the amounts of steel, copper, and aluminum that small users can write their own tickets for. That will benefit home builders and industries like chemicals and steel, which will get more metal for maintenance and minor plant additions.

 Also in the fourth quarter, all allotments will be increased, because of anticipated additions in steel and aluminum production and also to make sure that the metals producers get sufficient orders to keep them operating near capacity.

Even after next January, Fowler sees a real need for CMP-type allotments, if only to fill military and Atomic Energy Commission metals needs.

Meanwhile, he points out, controls won't seriously cramp metals producers. With demand for CMP tickets still far exceeding available supply—DPA is still trimming most allotment requests—there's little chance that any substantial production will go unclaimed for long.

• Machine Tools—In addition to the anticipated holding action on CMP, Fowler sees a number of other problems ahead. Machine tools are now being turned out in something approaching the numbers needed for the arms buildup, but some weapons still are being held up for lack of tools. Components, particularly those that go into both military and civilian items, are scarce and will get tighter next year. And manpower to staff DPA-NPA, long a headache, probably will get worse.

Fowler is worried least about tools. His first job at NPA last year was to help Clay Bedford, then an assistant to Fleischmann, break the bottlenecks in tool production. That job is done, he feels, and the big problem now is to get tools first to the production lines that need them most. DPA will do everything it can to help Harold S. Vance, Bedford, and their Production Policy Advisory Commission (BW—May10'52,p33) with this distribution

Fowler also helped draw up DPA's present plans for coping with the components shortage. To date, this consists principally of a scheme 'to give the arms producers both allotments and priorities to get the parts they need.

• Fewer Bureaucrats—The new DPA chief, though he spent a dozen years in government service before organizing his own Washington law firm in 1946, wants more businessmen, fewer professional bureaucrats, in DPA-NPA.

"So far," he says, "enlightened industrial concerns have accepted a share of the responsibility for military production beyond the form of taking defense orders, and have supplied us generously with technically skilled personnel.

"For many jobs in these agencies, the career civil servant, able as he may be, simply doesn't have what it takes. We need a number of men versed in industrial techniques, who can look at production demands of the military and judge whether or not they are reasonable. We can't begin to do our job without such men from industry."

# No Softeners . . .

### . . . permitted by new FSA bread standards. Makers of chemical emulsifiers will fight ruling.

The makers of chemical "softeners" for bread have dropped another round in their fight to stay inside the pale of government standards for baking com-

panies.

The Federal Security Agency has set its final seal on a new set of standards for the five leading varieties of bread sold in the U.S. These varieties are white, enriched, milk, raisin, and whole wheat bread. The rules, which will go into effect Aug. 13, contain these pro-

· Stricken from the list of permitted ingredients are the chemical softeners, or emulsifiers, of the polyoxyethylene monostearate and related groups (BW-Aug.12'50,p26). FSA says it has not yet been adequately proved that these emulsifiers are safe. And the agency adds that the softeners could deceive the consumer as to the age of

bread. · Permitted in shortening-in limited amounts-are mono- and diglycerides. Used to excess, these chemicals also have a softening effect. But FSA says that in the amounts permitted by the standards they improve the action of shortening without deceiving the con-

sumer. In effect, use of the emulsifiers en-

ables the bakers to use less shortening (BW-Mar.5'49,p26). It also causes the bread to stay soft longer. The leading makers of shortening have led the fight against the emulsifiers. Chief spokesman for the latter group has been Atlas Powder Co.

· Court Fight-the latest FSA action has brought a new protest from Atlas. Isaac Fogg, president of Atlas, calls the standards discriminatory and is prepar-

ing to fight them in court.

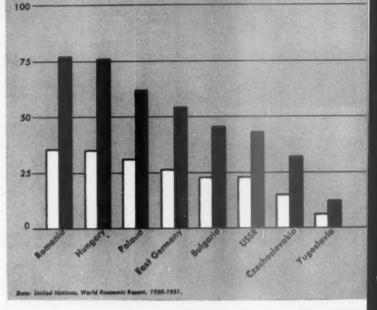
Bakers in general have no quarrel with the FSA standards. Both the American Retail Bakers Assn. and the American Bakers Assn. oppose the use of polyethylenes, though ABA is willing to reconsider if it is later proved that they are not dangerous.

· Further Tests-Meanwhile, FSA administrator Oscar Ewing admits that the case against the emulsifiers has not been

proved.

Right now researchers for the Food & Drug Administration are busy testing them. If these researchers give them a clean bill of health, Ewing proposes to reopen hearings on the whole problem, including the "safe" mono- and diglycerides.

# PERCENT GAINS IN INDUSTRIAL PRODUCTION Communist East vs.



This week the United Nations released its World Economic Report for 1950-1951. It shows that industrial production is up just about everywhere.

The important finding-as far as the U.S. is concerned-is that production in the Communist countries is increasing at a more rapid rate than in the non-Communist nations (chart, above).

U. N. gets all its figures for the report from official sources. All it does is check the statistics for consistency. If they hang together, the series is published.

· Over-All Picture-The degree of accuracy you can attach to the information is in direct proportion to the reliability you place on the government that issues the figures. But, assuming that the figures don't lie, here are some of the conclusions you end up with:

· The centrally planned economies are doing great. In the last two years they have been stepping up their output at a remarkable pace.

· Even though there was a sharp rise in military spending, civilian goods consumption actually picked up over most of the world.

· Food production is lagging behind the growth in world population. Per capita consumption is now less than it was 15 years ago.

· The Free World-Although the output of the free world was higher in 1951 than it was the year before, it was slipping toward the end of the year and at the beginning of 1952. The main cause was consumer disinterest-rather than any lack of production capacity or shortages of materials.

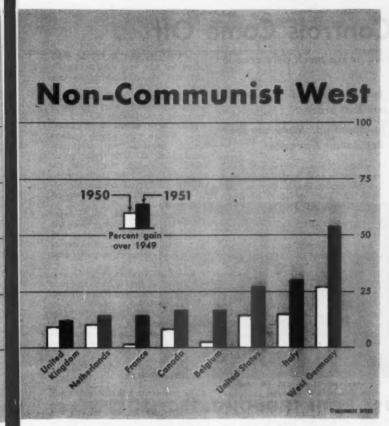
Both employment and agricultural production were up in most non-Com-

munist nations.

· Behind the Curtain-In the centrally planned economies of East Europe, agricultural output was up only slightly or showed a decrease.

But the indexes on industrial production released by these countries show an almost unbelievable-perhaps actually unbelievable-stepup in output.

For instance, Russia showed an in-



# World-on Paper, at Least

crease in output of 23% in 1950-and in 1951 an increase of about 16% over that.

According to a statement of the State Planning Committee of the U.S.S.R., Russia is well over her 1946-1950 five-year plan. In 1946 industrial production was 76% of that of 1940. The goal was to bring it to 148% by 1950. According to the committee, it was actually 173%.

The U. N. economic report also gives some information—derived from the Soviet—on various Russian industries. All the heavy industries are ahead of the originally announced goals. Some of the light industries are lagging.

The gains in output per manhour claimed by the satellite nations have rarely been attained by any country at any time. In 1950 the increase in productivity ranges from 9% to 19%. And then in 1951 productivity goes up by 10% to 14% more. In the U.S.—the most productive nation in the world—the long-term average increase in manu-

facturing productivity is somewhere around 3% a year.

If the Iron Curtain countries are actually adding to new plant at the rate that the figures show, production increases over the rest of the world are likely to be even bigger in the future.

Investment in fixed capital in 1950 ranged from 14% to 67% over 1949. In 1951 investment again went up from 12% to 45%.

Apparently, China is an economic utopia. According to the official figures, the Korean War hasn't caused the slightest drag on the economy. In 1951 everything was rosier—the figures show. Employment is up. Productivity is up. Real wages are up. Consumption is up, and prices are stable.

In the last three years the centrally planned economies have sharply contracted their trade with the West. It is now only about 70% to 75% as much as it was in 1948.

But trade among themselves has just about doubled in the same period.

# Oil Fact-Finders

PAD will study oil emergency in Midwest, as Secretary Chapman cuts aviation gas purchases drastically.

As the oil strike entered its third week, Secretary of Interior Oscar Chapman announced a plan for faet-finding committees of the Petroleum Administration for Defense to recommend action in 17 midwestern states, where oil supplies have dropped to a dangerous low.

The regional, state, and local committees will "find facts as to petroleum supplies and make recommendations for

meeting shortages.'

Chapman also issued a conservation order asking all government agencies to cut purchases of aviation gas by 30%. The armed forces have already cut their usage 50% in the U.S., and civilian aviation took a cut of 30% last week. In the directive, Chapman said no agency will be allowed more than 65% of what it used in March.

This week BUSINESS WEEK made a spot check through the country, to see what transportation difficulties the strike was causing. Aside from airline restrictions, most areas were in good cheer: Supplies on hand ranged from enough for two weeks, to an unlimited amount. Detroit and Chicago were the only sore points.

• Threat to Bus Service—In Detroit, the Dept. of Street Railways said at midweek that it had only enough gas to last through Friday. Unless it gets more by that time, it will have to shut off bus service. That would put about 75% of city transportation in the barns.

Approximately 60% of Detroit's 3,300 gasoline stations are out of gas. An additional 25% are operating on a day-to-day basis as storage tank supplies are depleted. The remaining stations, supplied by independents and firms not involved in the strike, have a fairly even supply of gas. Only real hardship for the motorist is that he may have difficulty locating a station that's operating.

In other parts of the state, there are no noticeable shortages anywhere. So far the unions haven't interfered with distribution through Bay City and Grand Rapids (large distribution points).

• Pessimistic—In Chicago, dealers expected a tight situation by weekend. Many stations are rationing gas, some are already dry. About 2,000 gasoline truck drivers have been laid off. The Chicago Transit Authority, which cut service last weekend, restored it after arranging with striking union to get gas from struck plants.

# If Mortgage Controls Come Off...

- Builders don't think it will make much difference in housing demand.
- Middle-price housing will benefit most. But it will take time for builders to shift into that bracket.
- Lenders don't expect to loosen up. Many say their terms are already stiffer than Regulation X requires.

The building industry is willing to bet that government controls on mortgage money won't last long now. When Washington decided last week to drop controls on consumer credit, builders took it as a sign that Regulation X—which controls mortgages—would be the next to go.

That's just what home builders have been demanding for months. They have complained bitterly that the high down payments and short maturities required under the government rules were cramping their market.

But now that the end of Regulation X is in sight, builders aren't sure that it will make much real difference to them.

• Survey—This week Business Week reporters in major cities all over the country went the rounds asking builders what would happen if Regulation X went onto the ash heap. Would sales increase, and in what categories? Would builders change their type of construction to meet an altered demand?

At the same time, the reporters checked with bankers and lenders in general. What did they think the results would be? Would their lending policies change?

• Mixed Answers—The idea of losing Regulation X brought a mixed catch of answers. Builders, almost everywhere, said "Wonderful!" Pinned down on just how wonderful, they ranged from uncertain to unimpressed. None of them would say it, but the feeling lingered that, partly at least, they had hated Regulation X just because it was a regulation. Few of them predicted that the end of Regulation X would set off any frantic building. Even fewer saw any shift in building from low-price to high-price houses as a result of lower requirements for down payments.

The lenders were even more cautious in their forecasts. A lot of them were glad to see the regulation go, but they hastened to add that it wouldn't change their policies. Many said that their terms already were tighter than Regulation X required.

On balance, the general conclusion seems to be this: Housing already is off to a spanking start this year. Dropping

Regulation X would help to keep it running close to boom levels—staving off a possible decline later in the year. But that's all. There would be no superboom in home building.

#### I. The Builders

Regionally, no particular pattern emerged. Take the Middle West. Builders in Chicago, Cleveland, and St. Louis gave yips of glee. The Home Builders Assn. in Cleveland predicted a 20% increase in availability of homes of all types. But St. Louis builders saw no such stimulus. They morosely opined that an end to Regulation X might help them get rid of houses already built, but not to see new construction. The buyers, they said, were playing hard to get.

One St. Louis builder in the mediumto high-price range said the end of restrictions would make no difference at all. Another iconoclast said: "Maybe we ought to keep X. As long as it exists, we feel that there is some excuse for not selling all the houses that ought to be sold. After X is gone, I don't know what we'll say."

• Middle Range—Detroit pretty much split the difference—predicting stimulated sales, but hazarding no guess on how much. The builders here voiced an opinion that cropped up in a lot of other cities: The biggest boost would be in the medium-price range. Detroit set the figure at \$12,000-\$15,000; Boston widened the range to \$12,000-\$18,000; Birmingham narrowed it again to \$15,000-\$18,000.

As the builders figure it, middleprice housing has suffered most from mortgage controls. At the bottom of the price range, down payment rules are easier. And at the top, buyers with big enough incomes to carry that kind of house usually have enough cash to manage the down payments.

A Boston builder argues that, with easier down payments, demand for middle-range housing would be swelled by several different groups:

 People who could have afforded them all along, but were forced to take smaller houses because of the postwar shortage.  Veterans who started in small houses, but who now want to upgrade themselves to accommodate growing families.

 Families whose incomes justify middle-range homes, but who have been frozen out by Regulation X.

There were plenty of dissenting voices, though. Pittsburgh's builders thought freedom from restrictions would chiefly affect the higher-priced houses. Charleston, S. C., said the main effect would be in the under-\$10,000 class. Charleston has the special problem of a swiftly growing defense population.

Fort Lauderdale, Fla., nodded politely to the woes of its sister cities, but pointed out that the steady influx of new inhabitants would keep its houses moving in all categories, no matter what the rules were.

• Slow Shift—No matter what happens to demand, builders say it will take time for individual constructors to shift from one kind of house to another. They point out that a developer can't change horses in midstream, even if he wants to. And generally, he doesn't seem to want to depart from his accustomed price range.

#### II. The Lenders

The prospective end of Regulation X doesn't cause much excitement among the lending fraternity—the bankers, the building and loan associations, the insurance companies. A surprising number of these reported that their own requirements were already more stringent than the curbs demanded.

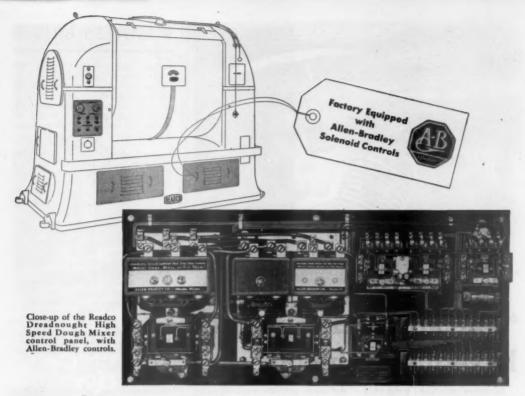
Mostly, they reported no shortage of mortgage money. But the money was showing little interest in the lower interest rates of Veterans Administration and Federal Housing Administration lons.

As one man, the bankers said that they were looking for good, solid, safe, conventional mortgages—and that no matter what happened to Regulation X they would continue this quest. They stressed that each loan application was being treated on its individual merits.

 Low Rates—There were some dissents, though, to the statement that mortgage money was plentiful. Detroit, for instance, said it was in skimpy supply.

It was suggested that a boost in the FHA interest rate might increase the lendable supply.

Detroit bankers injected another note: the suggestion that a buyers' market might develop out of the widespread feeling that house hunters weren't getting enough for their money.



## Readco DREADNOUGHT HIGH SPEED DOUGH MIXER

## operated by Allen-Bradley Controls

The 1600 lb capacity Readco Dreadnought High Speed Dough Mixer, manufactured by the Read Standard Corporation, is carefully designed to produce white doughs of uniform grain and texture. This modern mixer is automatically operated by Allen-Bradley motor controls.

Wherever reliable equipment operation is required you will find Allen-Bradley controls in use. Allen-Bradley solenoid starters and contactors have only one moving part. There are no links, levers, pins, pivots, or bearings to corrode, stick, or break. Their simplicity guarantees trouble free performance. These rugged controls are, likewise, equipped with double break, silver alloy contacts that require no maintenance.

Assure that your equipment will operate reliably by selecting Allen-Bradley controls.

Allen-Bradley Co., 1332 S. Second St., Milwaukee 4, Wis.



A-B Bulletin 709 Solenoid Starter, Size 3, only one moving part guarantees long trouble free life.



A-B Bulletin 800 T Oiltight Push' Button and Selector Switch.

ALLEN-BRADLEY
SOLENOID MOTOR CONTROL





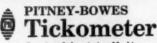
## "The attendance figures have just come up..."

Nowadays radio and TV reporters announce the attendance figures early in the game...and not "estimated" or round numbers, either.

There's no crystal ball or second sight required. The figures are correct, fresh from the office of the ball park... because the tickets are now counted accurately on the Tickometer—500 to 1000 per minute!

Hand counting of stubs used to take many man hours, but now one person and a Tickometer can tally even





Counting & Imprinting Machine
Offices in 93 cities in U. S. and Canada.

the largest gate in a couple of hours.

Banks and hundreds of other types of business use the Tickometer to count checks, bills, tags, coupons, and job tickets, paper forms of every kind—eight to ten times faster than counting by hand. Whole or partial counts are shown on visible registers...Can be equipped to imprint, date, endorse, rubber-stamp, cancel or code items as they are counted.

The Tickometer replaces tedious hand-counting, gets results quickly, savestime and money... Rented, never sold, the Tickometer requires no investment... is serviced in 93 Pitney-Bowes offices.

Call the PB office nearest you for a demonstration, or send the coupon for free illustrated booklet.

Send free illustrated Tickometer bookle	f fo:
Name	
Firm	

## **BUSINESS BRIEFS**

Chrysler Corp. will take over operation of the Detroit Tank Arsenal from the Ordnance Corps. Chrysler built the plant and operated it during the war. The move will end the furor the government stirred up when it decided to transfer the operation to private industry (BW-May3'52,p100).

Biggest bank merger in years will join Manufacturers Trust Co. and New York Trust Co. The surprise move, subject to approval of New York State Superintendent of Banks and authorization by stockholders, will make the new New York Manufacturers Trust Co. the nation's fourth-largest bank.

Cincinnati Enquirer employees will get the chance they wanted to buy their paper (BW-Mar.29'52,p28). A New York brokerage firm has agreed to make a public offering of bonds. It will permit employees to compete with a \$7.5million bid from the rival Times-Star.

Cut-rate air cargo was denied two airlines by Civil Aeronautics Board. Seaboard & Western Airlines and Transocan Airlines proposed reduced, allcargo services between the U.S., Europe, the Middle East, and India.

Any resemblance between a Michigan birch and a New Hampshire birch is purely coincidental, with New Hampshire the gainer, says the Michigan Tourist Council. It smiled indulgently at New Hampshire's charge that the Midwest state was pilfering a famous New Hampshire birch photo to lure tourists. Touchy New Hampshire threatens legal action.

American President Lines' return to private ownership has been stymicd by the Ninth Circuit Court of Appeals, which reversed a lower court decision. The appeals court ordered a new trial, involving former owner Stanley Dollar, who has been trying to get the line back for six years (BW-Jan.12'52,p28).

Schenectady will file claims totaling \$383,000 against bankrupt Schenectady Railway Co. The city council blasted Reconstruction Finance Corp. for throwing the transit firm into bankruptcy rather than accepting a chamber of commerce offer of \$495,000 toward its mortgage.

Book-of-the-Month Club can't use the word "free" to describe the book it gives to new members. Federal Trade Commission ruled the book is not free, since enrollee promises to buy four books. The club will appeal in federal court.



Over a mile beneath the earth's surface—6,800 feet—a great stratum of salt was tapped to provide the basic material for Columbia-Southern's chlorine-caustic soda plant at Natrium, West Virginia. These salt wells are the deepest in the world in commercial use.

Water is pumped down the wells to the salt bed, dissolving the rock salt and forcing the brine to the surface. The brine is then purified and its electrolysis, by means of specially designed high voltage cells, produces chlorine, caustic soda and hydrogen.

Obtaining brine from this great depth was a development which presented numerous problems. Their solution is another example of the pioneering achievements that have made Columbia-Southern a leader in the production of alkalies and related chemicals.

## COLUMBIA-SOUTHERN CHEMICAL CORPORATION

SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY

EXECUTIVE OFFICES: FIFTH AVE. AT BELEFIELD, PITTSBURGH 13, PENNSYLVANIA
DISTRICT OFFICES: BOSTON • CHARLOTTE • CHICAGO • CINCINNATI • CLEVELAND
DALLAS • HOUSTON • MINNEAPOLIS • NEW ORLEANS • NEW YORK
PHILADELPHIA • PITTSBURGH • ST. LOUIS



#### NATRIUM

#### . . . strategically located plant

Located on the Ohio River only 90 miles below Pittsburgh, Pa., the Natrium plant has excellent rail connections with industrial areas in the East and mid-West. Fleets of specially designed chlorine and caustic soda barges offer advantages to users along the Ohio-Mississippi waterways.

Columbia-Southern also operates plants at Barberton, Ohio; Corpus Christi, Texas; Lake Charles, Louisiana and Bartlett, California.



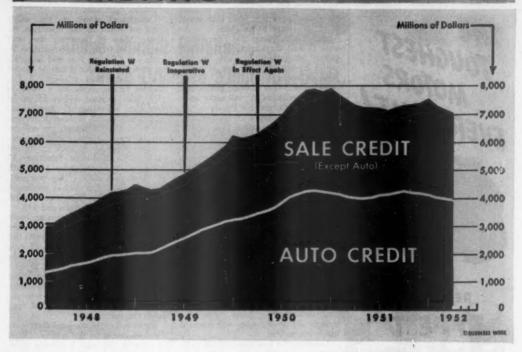
SODA ASH • CAUSTIC SODA • LIQUID CHLORINE • SODIUM BICARBONATE • CALCIUM CHLORIDE • MODIFIED SODAS CAUSTIC POTASH • RUBBER PIGMENTS (III-SII, Silone EF, Culcene TM) • CHLORINATED BENZENES • MURIATIC ACID PERCHLORETHYLENE Faster Heating Pits

Ty; ical of Salem-Brosius' leadership in service to the metal-working industry are the highly efficient ingot heating pits built by the Salem Engineering Division. These pit-type furnaces are well-known for rapid, uniform and accurate heating, easy operation, economy, great durability, and reduced scale loss. If you have a problem which involves the use of heating furnaces, blast furnace equipment, or charging and manipulating machines, it will pay you to call on highly experienced and diversified Salem-Brosius today.

SALEM-BROSIUS, INC.

SALEM ENGINEERING DIVISION, SALEM, OHIO BROSIUS DIVISION. PITTSBURGH 15. PA.

## MARKETING



## Regulation W Goes: What Now?

Ever since Regulation W put the brakes on instalment buying in September, 1950, it has been a handy alibit to help explain slow sales in furniture, appliances, and cars. A 15% down payment on furniture and appliances, the argument went, a third down on cars, and only 18 months to pay could effectively squash the urge to buy.

Even with this in mind, businessmen weren't quite sure what to think when the Federal Reserve Board took its foot off the brake last week. The question was: Would sales pick up enough to make a difference?

 Mixed Emotions—The answer across the country was mixed. Dealers and merchants greeted the news with everything ranging from a "Whoopeel" to a "So what?" Some thought it meant a slow, steady rise in sales; others thought it was good for a short splurge only.

It's too early to say for sure. But it looks as though few people are going to find a big difference. Car dealers, yes; sellers of the newer, less saturated appliances, probably. Sales people generally, no. Here's why: The truth is that Regulation W—as even some of its fiercest opponents admit—was not quite the conk on the head that they had predicted. Instalment buying eventually did level off when it went into effect—once the seasonal upsurge was past (charts, above). But it leveled off at a high level. Total consumer credit (including loans, charge accounts, as well as instalment credit) in March of this year was \$19.5-billion, considerably higher than pre-Korea's \$16.8-billion.

• Other Factors—The biggest part of the downtrend in auto and consumer durables sales has been in cash sales, not in sales on credit. In 1951 46% of auto sales were on instalment credit, 54% for cash. By February, 1952, instalment sales were up to 62%, cash sales down to 38%. Household appliances showed the same trend. Only furniture moved a little the other way.

furniture moved a little the other way.

Regulation W, in short, isn't the only thing that hit sales. FRB's latest survey of consumer finances showed that prices are a chief stumbling block (BW-Apr.12'52,p19). Now that Regulation W is off, some people may change their minds. But not everyone.

After the post-Korea buying rush, a lot of people are pretty well fixed up with furniture and appliances.

Moreover, dearly as dealers would like to move top-heavy inventories, they aren't enthusiastic over too-easy terms. The big change for both retailers and credit companies will be in 'the time allowed for payments, not the amount of down payment required.

Finally, Regulation X, controlling houses, is still on the books. It's probably headed for the wastebasket. But as long as it stands, it ropes off one big market—the new home owner.

The Fed's Motives—The Federal Reserve Board had all this in mind when it suspended Regulation W. Its unanimous decision to end controls was a solid vote against the prospect of a marked business pickup for at least three months.

Actually, the Fed's talk of "reluctance" to lift controls was strictly for public consumption. Direct controls are a headache to administer, and only worth the trouble if real inflation threatens. Besides, FRB now has the kind of psychological control it likes better. The Fed has quit trying to keep

For the toughest jobs in your plant...choose

TOUGHEST MOTORS EVER BUILT!

## RELIANCE TYPE 'T'

Heavy Duty D-c. Motors

3/4 TO 1000 HORSEPOWER

Write for New Bulletin C-2001

Wherever motors must meet rugged service requirements, Reliance Type 'T' Heavy Duty D-c. Motors are right in their element! Designed, engineered and constantly improved to satisfy the requirements specified by actual users, these dependable motors have proved their amazing endurance in steel mills, in underground mines and in countless other industrial applications.

Sales Representatives in Principal Cities

ECTRIC AND ENGINEERING CO.

1069 Ivanhoe Road . Cleveland 10, Ohio

"All Motors are NOT Alike"

government securities at or above par by buying all that are offered. Banks, as a result, can't count on raising money by selling governments to meet their own loans at a price that would make their loans worth-while

At the same time, the Fed doesn't want to wash Regulation W out of the picture altogether. It wants standby power to reinstate the law if condi-

tions change.

• W's Effect-For nobody denies that erasing Regulation W will make some difference. It's true that the down payments required didn't always kill sales: trade-in allowances often took care of that. The real catch was the 18-month time limit on payments. People who couldn't afford to pay \$85 a month on a \$2,100 car may be happier about \$63 a month for 24 months-the time most auto financing companies are talking about now.

· Score Card-Even this early, reactions to Regulation W's demise are showing

Car dealers are by far the most jubilant. A New York concern predicted a 25% increase in sales. In St. Louis, they heralded the day as the "dawn of a new era." Salt Lake City reports used car sales are up. A Los Ángeles dealer said he had sold five cars since May 1; he sold three in 15 minutes after the controls were off. More "activity"though not always sales-was reported nearly everywhere.

However, the Los Angeles dealer who offered a \$3,695 Cadillac with "five years to pay" probably isn't typical. The National Automobile Dealers Assn. is urging dealers to go slow, be sensible. Many are holding out for a 30% down payment, with 24 months for payments on new cars. And one candid dealer said that a good deal of the advertising has been merely a come-on. The people who get away with no money down will be carefully screened.

Appliance dealers were hitting the "no down payment" theme hard-from Washington to New Orleans. But again, they were apt to grant that they were not keen on this kind of deal. A distributor for a leading manufacturer thought sales might go up 20%. Detroit dealers, on the other hand, felt grimly that nothing would help re-

frigerators.

Appliance manufacturers, in general, seemed more enthusiastic than many of their dealers. J. B. Elliott, vice-president of RCA Victor, foresees a boon to TV. Relaxed controls plus the election should keep the market in good trim throughout the summer, he feels.

Elliott is one of several manufacturers who feel that a big benefit may be psychological. With this shot in the arm, dealers may go in for a more aggressive promotion campaign to move

Westinghouse agrees that sales will benefit. It doesn't think credit suspension will change prices or production

schedules right now.

Department stores on the whole don't see much in the relaxation for them. Most of them say they will simply revert to their pre-Regulation W terms. A Chicago firm will advertise no money down, but it will be careful how it grants that privilege. A Los Angeles retailer looks for a 10% to 15% sales increase within 15 or 20 days, then a leveling off. Another expects a 5% to 10% increase in the next month or so. But people are still inspecting the price tags closely, he warns.

Sears, Roebuck is back to its old terms: 10% down on furniture; \$5 down on appliances under \$200, \$10 on those over \$200. This company, unlike some others, thinks appliances will really benefit. There's quite a dif-ference between \$10 down and \$45.

Furniture dealers in Boston are hopeful that they will gain. Furniture sales have been moving pretty well this spring. Given the impetus of new terms-until now 15% and 18 months to pay-they expect business to pick up still more. But except for the "borax boys," the low-quality operators, they aren't going to be lured into any no-down-payment deals. It just isn't worth the risk.

Banks and credit companies are being watched closely by the retailers. Bank of America, for one, is quoting terms like this: On cars, 30% down with 30 months to pay for new ones; same down, 24 months for 1948, 1949, and 1950 models; a third down and 18 months for the two previous years; 40% down and 12 months to go for all those older. On white goods, it offers no down payment and a maximum of 24 months if the credit is good. On radio and TV, 10% down, 24 months to pay.

Credit companies' thinking follows that of the banks. C.I.T. Financial Corp. is keeping the one-third down payment, extending the time. American Finance Conference says most credit companies plan to stick to at least a third down on all cars. It thinks one result may be an upgrading in buying-and perhaps a lower price on older

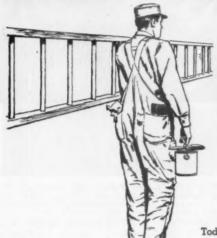
· Affectionate Farewell-The net result seems to be a surprising affection for the old Regulation W terms. "When you spread payment time over 18 months, you have nothing but grief," a big appliance store reports. A spokesman for the furniture trade adds: "Now we'll have to watch our own credit. Uncle Sam isn't credit manager any more.

There's one joker, however. If the public still stays flat-footed on the sidewalks, many companies will forget their caution and offer more inducements.

nes The same of th

Those Wonder Finishes
You've Dreamed about Are Here...







## ...with Creative Chemistry Your Partner in Progress!

Today there are surface coatings for every purpose, product and process...specialized finishes for both commercial and domestic applications...all with colors true and brilliant as

a laboratory spectrum. But, many of these might never have existed were it not for RCI, pioneer in synthetic resins and prime producer of chemical colors. In the paint industry, as in the many other industries it serves, Reichhold has a long record of contributions...new ideas, new opportunities for the manufacturer—

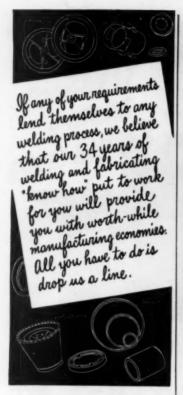
See "America's Town Meeting" on TV every Sunday on ABC presented by Reichhold as a public service.

REICHHOLD CHEMICALS, INC.

630 Fifth Avenue, New York 20, N. Y.

developed through creative chemistry.





# GO "AMERICAN" FOR CIRCULAR WELDED PRODUCTS





VENDING MACHINES for Reader's Digest in Chappaqua station posed question . . .

## Coincidence? Or Safety First?

The Reader's Digest could have been making an ironic gesture recently when it installed a vending machine in the Chappaqua (N. Y.) station of the New York Central (above).

It seems that Chappaqua got a national reputation a few months ago, when stationmaster George A. Williams said that commuters on the 7:43 were cheating him. He accused them of taking money out of-rather than putting it in-the change box on the self-service newsstand for morning papers (picture, lower left). And he claimed to have some motion pictures of the guilty parties, caught in the act.

• Just Coincidence—Irony, however, is far from the Reader's Digest mind. The Chappaqua installation is just part of an experiment the Digest is making to find out if you can sell magazines successfully through vending machines.

It's a question that has long intrigued

publishers. Both Curtis Publishing and Crowell-Collier Publishing gave the idea a whirl, but dropped it as impractical. Main catch: the high cost of servicing machines that sold such a lowprofit item.

 Revival—Recently, there has been a new flurry of activity. The Digest now has 102 machines in high-traffic spots.
 Cowles Magazines has been vending Quick experimentally for the past year and a half. Time, Inc., has a prototype vending machine for Life and Time.

Publishers of pocket-size books are in the act, too. One company, Pocket Books, tried it for five years before it gave up the idea. It figures that it would need 10,000 locations to make money and that there weren't that many good locations left over from its regular distribution setup (100,000 outlets). But Avon Publishing reports that it now has 210 machines out. Avon says they're doing well.

## "MAN-MADE MINERALS"

carry on where nature leaves off



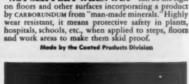


COLORPUL CERAMIC WARE is fired in high-temperature kilns equipped with GLOBAR silicon car-bide heating elements. These rods afford accurate control of temperature at all stages and eliminate the possibility of color contamina-tion that is present in kilns where other methods are used.

metallic heating elements by the QLOBAR Division



DEFYING THE FORCE OF GRAVITY, solid steel "Jo-block" gauges hang suspended by nothing but surface adherence. Millionth-of-an-inch toler-ances are produced by abrasive wheels, cloths and polishing grits. All are prod-ucts by CARBORUNDUM from "man-made minerals." Today, only CARBORUNDUM offers ALL types of abrasives to give you the proper ONE.



"NOT SLIPPERY WHEN WET" can be the sign



GLASS PRODUCERS report greater production of fine-quality glass from melting tanks lined with the new MONOFRAX fused cast refractories. These refractories provide exceptional resistance to erosion and high temperatures. CARBORUNDUM supplies a wide variety of super refractories for the specialized needs of hundreds of types of furnaces and process equipment

Made by the Refractories Division

Nature didn't produce enough minerals for modern industrial requirements, so CARBORUNDUM filled the gap with "man-made minerals." These became the final key to mass production of interchangeable parts, and today they have a cost-reducing influence on just about everything you buy or sell.

Silicon carbide and aluminum oxide possess properties that qualify them for many industrial tasks no other materials can do so well at so little cost. A few of those in which research by CARBORUNDUM has had a leading part are suggested here. If they start you thinking along lines that involve exceptional strength, hardness, electrical resistance, sharpness, thermal conductivity, resistance to high heat, corrosion or erosion, we would like to work with you.

CARBORUNDUM'S business is to make "man-made minerals" serve man better.

Keep your eye on

## CARBORUNDUM

for significant developments based on "man-made minerals"

THE CARBORUNDUM COMPANY, NIAGARA FALLS, N. Y.

Preducts by CARBORUNDUM include Grinding and Cutting-Off Wheels, Discs and Sticks...Coated Abrasive Sheets and Belts...Waterproof Abrasive Paper... Abrasive Groin and Powders and other obscrive Sheets Heating Elements and Ceramic Resistors...Grain and Briquettes for deaxifalting steel and iren...Super Refractory Brisks, Special Shapes and Cements...Porous Filter Media and Diffusers—and are marketed under the following trademarks...Procus Filter Media and Diffusers—and are marketed under the following trademarks...CARBORUNDUM ...ALOXITE ...MX ...BED.LCLUT ...GLOBE FIREOCAREO - CARBORRAX - ALFRAX - MONOFRAX + MULLFRAX



## Why the 'yellow pages' will help sales results in 1952

This year thirteen leading consumer magazines will be used to promote the 'yellow pages' of the telephone directory. They will carry 373,802,585 of these eye-catching 'yellow pages' cartoon messages.

The campaign will remind buyers of consumer and industrial branded products to refer to the 'yellow pages' for buying information. It will increase the effectiveness of the campaigns of advertisers using Trade Mark Service, particularly those running a tie-in phrase in their national advertising.

For information about Trade Mark Service for your

business, call your telephone business office, or see the latest issue of Standard Rate and Data (consumer edition).

AMERICA'S BUTING GUIDE FOR OVER 60 YEARS



## Whiskey Woes

Federal tax boost made liquor expensive, scared consumers away. Now distillers are painfully cutting prices.

There are now about 768-million gal. of whiskey in the warehouses of U.S. distillers—enough to flood an area of 100 city blocks to a depth of 10 ft. This may sound like fun to the whiskey-drinking public, but to the distillers themselves it's a nightmare. To them, it's an indication of slackening sales, mounting inventory—caused largely by increased taxes that have kicked whiskey prices out of the consumer's reach.

• Down They Go-If inventory is to move, prices will have to drop-even if the difference comes out of the distiller's hide. That's just what is happening. Last week United Distillers announced that its J. W. Dant bonded bourbon would sell in New York for \$4.49-90¢ below its previous price.

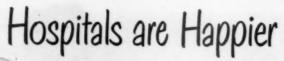
Schenley, at the same time, was introducing on the New York market a four-year-old straight bourbon—Chimney Corner—at \$3.27 a fifth. This marked the first time a national distiller had sold a four-year-old straight at the price level of tertiary (third-class) blends. Along with Chimney Corner, Schenley brought out another new brand—Mirror Brook Bottled-in-Bond bourbon. This brand sold at \$4.29, which is somewhat under the level of primary blends such as Scagrams 7 Crown, Calvert Reserve. This, too, set a precedent: Never before had a national distiller sold a bonded bourbon below the primary blend level.

Hiram Walker has cut the New York price of its six-year-old Mill Farm bourbon from \$5.53 a fifth to \$4.85.

• The Blends—What are the blends doing as the straights move down into their price territory? Just sitting and watching, mostly. Distillers Corp. Seagrams, Ltd., which puts out blends exclusively and is top dog in the blend industry, hasn't cut prices in years. Nor do many people in the trade expect it to do so—at least until the straights prove that they're coming all the way down into the blend country and intend to stay there.

The blends, of course, are having much the same troubles as the straights. Since blends, on the average, are cheaper, tax increases haven't pushed blend prices so far over the consumer-resistance line as those of the straights. Still, blend sales are falling; inventories are climbing. Stocks of neutral spirits—the alcohol that makes up part of a blend—now stand at about 115-million





with Truscon Steel Windows



Steel Windows, Truscon Architec-tural Projected Steel Windows, and Truscon Intermediate Steel Case ments in the Youngstown Hospital, North Unit, Youngstown, Ohio. Truscon "O-T" Open Truss Steel Joists and Truscon Reinforcing Bars also used in this structure. Kling & Frost, Architects.

Joseph Bucheit & Sons, Contractor,



Truscon Intermediate Casement Combination Steel Windows in the Nurses Home, General Hospital,

James H. Ritchie, Boston, Architect. Volpe Construction Co., Malden, Mass., Contractors.



Truscon Maxim-Air Steel Windows in the Ward and Infirmary Build-ing, Arkansas State Hospital for Nervous Diseases, Benton, Ark. Trapp & Clippard, Architects. Linebarger Construction Company,



Truscon Psychiatric Detention Steel Windows in the Fairfield State Hospital, Newton, Connecticut. Adolph J. Adiletta, Bridgeport, Conn., Architect.

Fronge Construction Company, Bridgeport, Conn., Contractors.

Nature's free sunlight and fresh air are particularly valuable assets to hospitals of all kinds. Make these important hygienic and thera-

peutic forces fully available to the hospitals, sanitariums and similar institutions now on your boards, by adapting Truscon Steel Windows to their many specific needs. See sweet's for complete specifications on the entire range of Truscon Steel Windows, and write for free illustrated literature.

> TRUSCON® STEEL COMPANY 1076 ALBERT STREET YOUNGSTOWN 1, OHIO

a name you can build on TRUSCON

MARK OF MERIT

PRODUCTS

gal. This is almost double the inventory of a year ago.

· Why?-Distillers blame this situation almost entirely on the federal government. On Nov. 1, 1951, the government raised the tax on whiskey from \$9 a gallon to \$10.50. This, distillers say, is 10 times the cost of manufacture. It forced prices up so high that consumers just stopped buying.

During the first five months after the tax went into effect, tax-paid withdrawals of whiskey (amount taken from casks to be bottled) dropped 32.6% below the corresponding period of the year before. Stocks a year ago were 708-million gal. They've gone up 60million gal. since-making the total equivalent to an eight-year supply at the present rate of consumption.

Arthur D. Schulte, president of Park & Tilford Distillers Corp., points out that consumption now is way below pre-Korea levels. Tax-paid withdrawals from November, 1948, through March, 1949, were 66-million gal. During the same period in 1951-1952, withdrawals were only 61-million. "This is in striking contrast," Schulte complains, "to an increase of 15.7% enjoved by all industries combined, as shown by the Federal Reserve Board's index of industrial production.

• Dead Goose-The ironic part of the whole thing, distillers add with a certain melancholy glee, is the fact that the government has lost money instead of gaining by raising the tax. Consumption fell so far that even \$1.50 more tax per gal. couldn't keep revenues up to par. During the five months after the tax went up, Schulte says, the government collected 21.4% less in liquor revenues than it had in the corresponding 1950-1951 period.

This led J. E. McKiernan, vice-president of AFL's distillery workers' union, to say that the government had "just about killed the goose that laid the golden eggs." McKiernan's distillery workers are having their troubles along with everyone else in the business. Of 8,000 employed in the Kentucky whiskey industry, 2,000 are now idle because of production slowdowns and outright plant shutdowns. Only about half the distilleries in Kentucky, in fact, are now operating.

· Hue and Cry-Whiskey distillers and marketers aren't taking their troubles lying down. They're lobbying energetically to get the federal tax cut back to its former level. Many of them even want it cut to \$6 per gal., where it stood until 1944.

Even state governments are mad. State liquor revenues are falling away as consumption drops. The National Conference of State Liquor Administrators held a meeting recently in Houston, Texas. The conference added to

# Now... You can get Acetate's superior qualities in Barrier Wraps And Stay Competitive!



Newly developed Celanese\* Acetate film formulae will enable manufacturers to meet and even exceed government specifications for greaseproof preservation packaging without high costs.

When complete greaseproofing of barrier wraps is required, specify an acetate film layer. Acetate provides grease resistance in excess of Government Specification JAN-B-121. Acetate offers protection against natural oils and greases as well as most of the new synthetic types such as MIL-G-3278 aircraft and instrument grease. It does this over a wide range of temperature, humidity and aging conditions.

Acetate conforms readily . . . imparts ease of handling when wrapping. Acetate combines with all materials: kraft, fabric, paper, metal foil, glass fiber.

Don't forego the advantages of acetate because of price. The newly developed Celanese formulae

will keep your wraps competitive—and your customers satisfied. Technical information is available on request. Write or call:

Celanese Corporation of America, Transparent Films Dept. 129-E, 180 Madison Avenue, New York 16, N.Y. In Canada, Canadian Cellulose Products, Ltd., Montreal and Toronto.



TRANSPARENT FILMS

\*Reg. U.S. Pat. Off.



Their Own Timetables

- Corporate use of single-engine planes is spreading at a rate which gives emphatic proof of their utility. An estimated 7,500 aircraft of this type comprised this "business fleet" in 1951, an increase of some 25 per cent since 1948.
- Such craft not only bring points off main airline routes within range of fast air travel, but lessen businessmen's dependence on hard-and-fast timetables. More and more of them are writing their own, and saving countless hours of time.
- As builder of the engines powering the greater number of these planes, Continental Motors is gratified, naturally, both at the proof of utility which such acceptance reflects, and at users' clear preference for planes with Continental power. Needless to say, it stands committed to the policies which have fostered this preference.
- Continental will continue its emphasis on aggressive engineering, its adherence to highest standards of material and workmanship, and far from least important, on the maintenance of parts and service wherever businessmen—or anyone else—may fly.



Continental Motors Corporation

Aircraft Engine Division

MUSKEGON, MICHIGAN

the growing pile of complaints by denouncing the federal tax as "illogical, unreasonable, and inimical to the public interest."

## Branch Stores ...

... have West Coast merchandisers eying the trend to suburban shopping centers.

The San Francisco Bay area is making up for lost time. For years it held out against full-fledged branch department stores, till architect Welton Becket designed a big new shop in Stonestown for the Emporium (BW—May10'52,p38). That broke the ice.

Now it's clear that the freeze is off for good. Emporium Capwell Co. may branch out further. And R. H. Macy is hatching plans for a suburban unit in the \$15-million Hillsdale Shopping Center in San Mateo, just outside San Francisco, where a supermarket and a Sears, Roebuck branch are already doing business.

• Mastermind—The man behind the drawing board for all this activity is Becket and his architectural firm, Welton Becket & Associates, headquartered in Los Angeles. Becket contends that the planned-from-the-start shopping center is just getting its sea legs. To back it up, he points to his own docket: \$230-million of new building now on the drawing boards or under construction, a third of which is in shopping centers in Phoenix, Milwaukee, St. Louis, and New Jersey, as well as on the West Coast. And despite San Francisco's balky geography, he has his eye on at least four good sites in the neighborhood.

• Rules of Thumb—Becket broke into the retail end of his business when he designed Bullock's Pasadena branch soon after the war. Since then, he has firmed up his ideas on retail design in general and shopping centers in particular. This week at a forum at the University of Pittsburgh he summed them up:

Keep the construction flexible, inside and out; leave room for shifting departments and expansion. Don't aim at too large an area—people get tired of walking if they have too much ground to cover. Multideck parking instead of ground space for 8,000 to 10,000 cars does the trick, and it's cheaper because of the high cost of land. Don't build a store to last 200 years; 75 is plenty long enough for our changing times.

By using lighter construction, Becket reports he has saved 30% to 35% in costs on most of his buildings.



## Drilling a hidden bull's-eye

... more than a mile underground

Deadeye Dick was a poor marksman, compared to Driller Dan. For the boss tool pusher on a modern drilling rig can hit a target a mile distant, underground, and 'round a bend!

How does he do it? By using a compass and camera. These, plus a ton—more or less—of drilling tools that enable the compass-camera to tell the truth.

There's no great trick to drilling a hole off center. But to point it where you want, and do it quickly, is something else again.

Before the compass-camera could be lowered for a snapshot, the whole string of tools first had to be pulled out. That was to avoid the effect of magnetism, and it took time. Plenty of time.

Drilling costs can run as much as \$5,000 a day. So, someone suggested, why not design a drill collar that wouldn't have to be pulled, because it couldn't deflect the compass needle? Why not indeed?

All you needed was to produce a piece of oil well equipment 15 to 22 feet long, about 7 inches in diameter, and weighing in the general neighborhood of a ton. The metal must dampen completely the magnetic field of the drill string and thus enable you to obtain a true magnetic compass reading.

And in addition, this drill collar must provide the rugged mechanical properties called for by rotary rig drilling.

The answer? "K" Monel, one of the heattreatable, high-strength Inco Nickel Alloys.

#### Have You a Metal Problem?

Some problems are more immediate than others. Some must be resolved tomorrow; some, perhaps, can wait until materials like the Inco Nickel Alloys are readily available again to anyone who wants them.

Whatever your particular problem, our staff of metal specialists is ready to work with you right now to find some metal—whether Inco Nickel Alloy or not—that will help you solve your toughest problem. You can start them working for you by setting down the facts they need to study. Then mail the outline to "Forward Planners" at The International Nickel Company, Inco Nickel Alloys Dept., 67 Wall Street, New York 5, N. Y.

THE INTERNATIONAL NICKEL COMPANY, INC.



## **Nickel Alloys**

Monel® • "R"® Monel • "K"® Monel "KR"® Monel • "S"® Monel • Nickel Low Carbon Nickel • Duranickel Inconel® • Inconel "X"® • Incoloy® Nimonics



## QUIZ ON SUBJECTS OF GENETAL INTEREST



Just about everybody interested in better packaging knows that the bar and 5 stars identify the General Box Company. For more than a quarter of a century we have been designing containers that are lightweight, extrastrong—that are actually "Part of the Product." If you have a packaging problem, either military or civilian, be sure to write us. Our new laboratory in Des Plaines—surely one of the country's finest—is available to meet your packaging needs.

Central figure: General Sheridan. Upper right: General Fech. Central right: Duke of Wallington.

Write for your copy of "The General Box."

It tells the complete packaging story. It shows how you too can cut packaging and shipping costs. Write today.





EVERYBODY KNOWS THIS GENERAL

KNOW THIS GENERAL?

KNOW THIS GENERAL?

## BOX COMPANY

GENERAL OFFICES: 1805 Minor Street, Des Plaines, III.

DISTRICT OFFICES AND PLANTS:

Locinosti, Devolle, N. J., Debell, East St. Louis, Konsos City,

Levirville, Milweuten, Shebaygon, Winchondon,

General Bax, Company of Mississiasi, Mindidon, Miss...







General Noiled Say



General Cleated



Constalle



unity Country of Marie Vision of Marie Vision

## MARKETING BRIEFS

Carpets down: No sooner had James Lees shaved 5% to 10% off its carpet prices than Alexander Smith followed suit with an 8% cut. Masland did the same. Firth Carpet dropped its prices 6%.

And appliances: Nash-Kelvinator cut prices on two Kelvinator refrigerators and one home freezer. Two Frigidaire refrigerators and three home freezers also succumbed to price cuts.

A fair trade bill whipped through the House last week, in just the shape the druggists wanted it. It got shunted to the Senate Interstate Commerce Committee, which may get it out on the floor before Congress adjourns. Chances of a Presidential veto are still strong, however.

Columbia Records followed hard at the heels of RCA Victor (BW-May3'52, p50) with a three-speed record-playing attachment, Columbia's first. The price -\$12.95-makes it the first low-cost three-speed machine ever marketed by a major manufacturer, says James Conkling, president of the company. RCA's prices-subject to OPS approval-range from \$49.95 for the attachment to \$129.95 for a radio-player combination.

High taxes may wash out Sears, Roebuck's plans for a big new store in Columbus, Ohio—at least this year. Sears has spent some \$300-million in the past six years to open new stores and expand old ones.

Ford Motor Co., through J. Walter Thompson advertising agency, is putting out a new pocket-size magazine called "Clues." It's to be distributed by dealers to their truck and truck service prospects. Circulation: I.I-million.

Soil conditioners are bursting out all over. Monsanto's Krilium (BW-Jan. 19'52,p107) will be in the hands of retailers by June 1. Price: \$6.95 for a 15-lb. package. Meanwhile, Wilson Chemical got its Poly-Ack on the market some weeks ago. Nott's Soil Life hit the stores this week. Du Pont will have one ready by mid-June. And Dreer's Fluffium is bucking the competition by mail order.

Crepe on the block: Slow sales have led Textron, Inc., to close down its crepe weaving mill in Suncook, N. H. Company officials don't know whether the move is for keeps or not.

This could never happen in your building with

## **Adlake**

aluminum windows on the job!





If you are planning a new building...or if the windows in your present building are rusting or rotting... install ADLAKE Aluminum Windows. You'll eliminate all maintenance costs except routine washing.

And ADLAKE construction assures a perfect weather seal throughout the life of the window. The exclusive combination of woven-pile weather stripping and patented serrated guides gives anug protection against wind and weather, plus lasting fingertip control.

For both replacement in older buildings and original equipment in new, ADLAKE Aluminum Windows mean extra value, extra beauty, extra efficiency. Get the whole story today—you'll find ADLAKE Representatives in most major cities.

#### IN NEARLY ALL AMERICAN RAILROADS

... ADLAKE Double-Glazed Windows, with exclusive "Breather and device, assure passengers an always-clear view of the scenery. No dehydrants to change, no maintenance other than routine washing!

IN STREET CARS, BUSES, TROLLEY COACHES... ADLAKE Aluminum Sash gives maintenance-free operation for the life of the vehicle. Their deep-pile weather stripping and exclusive serrated guides form a perfect weather seal, and they never stick or rattle.



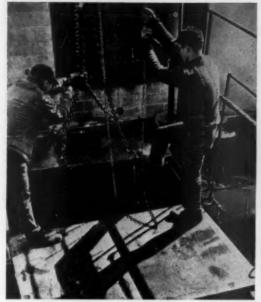




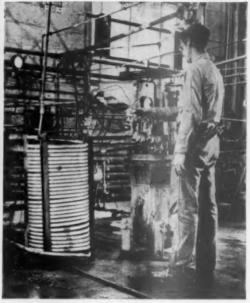
THE Adams & Westlake COMPANY

Established 1857 • ELKHART, INDIANA • New York • Chicago

## PRODUCTION



In Chemical Construction Corp.'s new metals refining process, a basket of scrap is lowered into leaching solution.



Heart of the process is the autoclave, a sort of pressure cooker where the reducing agents are applied.



Finished product is in handy, powder form like this 99.9% pure copper.

## Cyanamid Finds New Way To Get Metal From Ore

For the first time in centuries, a radically new process has come to the field of metals refining. Metallurgists already count it a fine bird in the hand. And they believe there are a couple of other birds-possibly eagles-that will come along:

· Even now, the new refining-bychemistry method shapes up as competitive with older methods, with a few marked advantages.

· For the future, it opens up tremendous possibilities in using the enormous deposits of low-grade metallic ores in the U.S. and of turning scrap heaps into productive "mines."

• Also for the future is the possi-

bility of great savings in transportation costs by locating refineries at the mines or close to sources of scrap metal.

Chemical Construction Corp., a subsidiary of American Cyanamid Co., announced the new process last week. Metallurgists threw fits of joy.

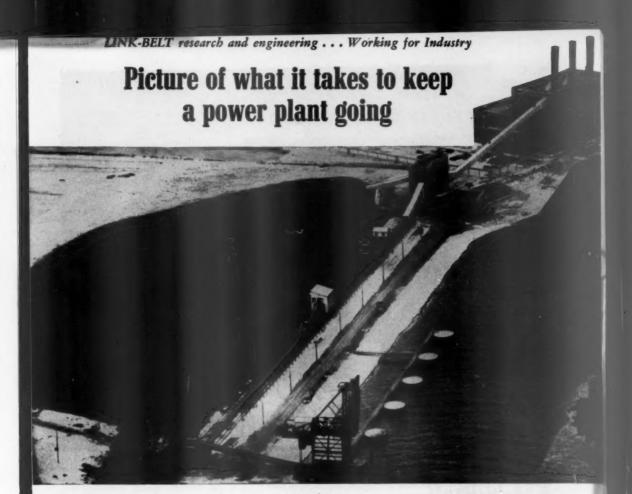
• The Old Way-Until CCC got going, the refining industry had depended on two methods of extracting metals from ore. In electrolysis, positive and negative charges separated metal from the earths in ore. In smelting, the ore was fired at high temperatures to separate the pure metal.

CCC went off on an entirely new tack, with acids doing most of the refining job. In time, this may make it possible entirely to bypass the older methods. CCC says its process will work with most known metals, and at competitive costs. A big bonus is that the metal comes out in pure, powdered form, easier to handle than

With its process ready for commercial use, CCC isn't sitting back waiting for industry to come after it. Three projects are already on the fire; these projects will add many tons of strategic

metals:

• CCC is building a \$2.5-million plant near Salt Lake City for Howe Sound Mining Co. This first commercial application of the process will





This flexible Link-Belt conveyor system at a modern generating station provides for selective handling, storage and reclaiming of coal unloaded from lake boats. Lower illustration shows belt conveyor and tripper distributing coal to bunkers.

## LINK-BELT coal handling equipment plays a vital role in feeding America's hungry boilers

An efficient system of coal handling is basic in the design and economical operation of modern coal burning steam generating plants. Maximum efficiency and minimum costs are achieved only when the coal system is properly planned as an integral part of over-all plant design.

Link-Belt engineers have a vast background of experience in both large central station and smaller industrial coal handling applications. More, Link-Belt is prepared to design, furnish and erect the entire system. And from its complete line, recommend the right equipment for the job.

Link-Belt conveying and elevating equipment carries the coal from rail or dockside to storage areas and bunkers. Stackers and shovel-cranes stockpile and reclaim. Railroad car dumpers and shakers, screens, crushers and dryers perform other important functions.

And coal is just one of the basic materials conveyed and processed by Link-Belt equipment. In mine, mill or plant—wherever movement of materials is required—Link-Belt welcomes the opportunity to propose improved mechanization . . . help you reduce costs and increase output.

#### LINK-BELT COMPANY

Executive Offices:
307 N. Michigan Ave, Chicago 1, Ill.
Plants: Chicago 9, Indianapolis 6, Philadelphia 40,
Atlants, Houston 1, Minneapolis 9, San Francisco 24,
Los Angeles 33, Seattle 4, Toronto 6, Springs (South
Africa), Sydney (Australia). Offices in Principal Clides.



ONE SOURCE . . . ONE RESPONSIBILITY FOR MATERIALS HANDLING AND POWER TRANSMISSION MACHINERY

## Over 54% Quieter\*

## **VICTOR'S SUPER-QUIET CUSTOMS**



Now Victor has surpassed even its own standards of silence in the high speed Super-Quiet Custom adding machines. With the rugged, precision mechanism "floating" in an exclusive sound-reducing case, Victor Customs are faster, easier to operate, quiet as a whisper. They increase the speed, accuracy and efficiency of office work by reducing objectionable noise and operator fatigue.

Victor Customs are more than mere adding machines, too—they add, subtract, multiply, divide, even calculate! A movable decimal marker, exclusive with Victor, allows operator to pre-set decimal places which speeds calculation and all work involving decimal equivalents. And Victor Customs cut operating costs by simplifying your figure-work... anyone can operate a Victor.

In addition to the Custom models shown, there are many other Victor models for every size and type of business. Call your local dealer or factory branch now . . . listed under "V" for VICTOR in the "Adding Machine" section of your Classified Directory.



\*In scientifically controlled tests, Victor's new Super-Quiet Customs were 25 to 85% quieter than other leading makes tested... averaging over 54%.

#### VICTOR ADDING MACHINE CO., CHICAGO 18, ILLINOIS

The Warld's Largest Exclusive Manufacturers of Adding Machines In Canada: McCaskey Systems Limited, Galt, Ontario

IN	VE:	ST	IN
10		ΓN	n
W	M	ш	W
ш	П		П
Ц	$\mathbf{u}$	10	Ц

34 YEARS OF QUALITY RECOGNITION THE WORLD OVER

Victor Adding	Mechine (	Co., Chicago	18, III., Dept.	BW-552
Please send fr				
descriptive fol	der on the	Super-Quie	Custom add	ling machines.

City\_\_\_\_Stat

start this summer and is scheduled for an annual output of 2,000 tons of pure cobalt. That's equal to a third of U.S. consumption in 1950 and will boost world output by more than 30%.

• A variety of metals will be processed at a \$5-million refinery of National Lead Co. at its Fredericktown (Mo.) mine. National Lead plans a yearly capacity of 700 tons of cobalt, 900 tons of nickel, 700 tons of copper, plus 7,500 tons of fertilizer-grade ammonium sulfate. Its opening date is set for mid-1953.

• The CCC process is being combined in a \$17-million refinery at Edmonton, Alta., with the ore-concentrating process of Sherritt Gordon Mines, Ltd. The principal product will be nickel, at an 8,500-ton-a-year clip. The plant will also produce 1,000 tons of copper and 150 tons of cobalt.

• Limits—Just what metals can be handled by the CCC process depends on a group of complicated chemical factors called the series of electromotive forces. The company says it can tackle any metal below zinc in the series. That covers most important metals, but manganese, aluminum, and magnesium are left out for the time being—but may come later.

CCC first started on the nonferrous metals that are now in short supply. It won't talk about its plans for the commoner and more plentiful metals like iron.

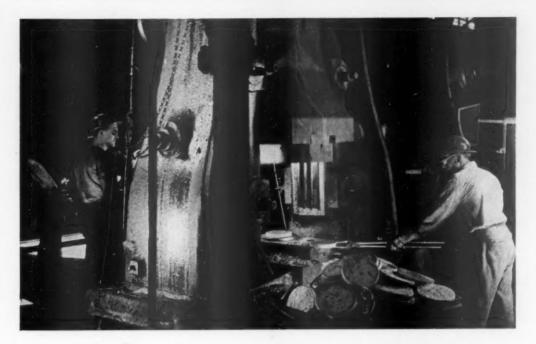
The raw materials can be fed into the refining equipment either in the form of concentrated ore, or of scrap. The company says that the recovery from scrap might in time rival the output of big domestic mining operations, and without depleting basic sources.

 Preliminaries—When a commercial installation is planned, it is necessary first to get pilot plant data on each different ore body. Then the process is adjusted to the particular job. In general, though, the process works like this:

Either concentrated ore or scrap is watered into a slurry and then pumped into an autoclave—a strong, closed tank, akin to a pressure cooker. There, the metal or metals are recovered by applying great heat and pressure, along with reducing agents. The metal emerges as a powder in solution, and is finally washed and dried.

Produced in large tonnages, the powdered metal should be a boon to metal fabricators. In the past, raw, cast ingots have usually had to be melted before they could be worked. The powder can be made directly into billets for extrusion into rods, tubes, or shapes.

Licensing for the process will be handled through Chemetals Corp., a group of investors who helped finance the development. CCC has given Chemetals an exclusive license for the U.S., Canada, Mexico, and the United Kingdom.



## Finer cars are forged with this hammer's help!

Your car's smooth, easy drive may very well depend on the skill applied to this drop hammer by a forgeman at Barium's Globe Forge, Inc.

For Globe, like its three sister Barium subsidiaries shown below, supplies America's top automakers with vital steel components. In Globe's case, it's highstrength, drop-forged gears, shafts, shifters.

What could better help the automotive industry make better cars for you than a unified source for its many steel needs?

Such a source is the group of strategically-located companies known as Barium Steel Corporation...controlling quality from blast furnace to finished product ... working as a self-contained unit to speed urgently needed

For information on how the Barium team can bring joint knowledge to bear to solve your steel problems, whatever your industry, address Barium at 25 Broad Street, New York City.



BAYONKE BOLT CORP. CENTRAL IRON AND STEEL COMPANY - CREETER BLAST PURMACE - CLYDE IRON WORKS, INC. - CUYANDOA SPRING COMPANY - SRIE BOLT AND INT COMPANY - GENETIC CAMPING CO. - GLOBE FORGE. INCORPORATED - INDUSTRIAL POPOLE A STEEL, INC. - JACOBS AIRCRAFT ENGINE CO. - KERNATH MAUFACTURING CO. - KERNATH LIMITED (CAMADA) - PHORENIX BRIDGE CO. - PROGNIX



Cars are more dependable, thanks to coiled springs and wire specialties made at Barium's Cuyahoga Spring Co., Cleveland, where this grinding machine is used.



Precision's built into cars by accurate jigs, tools and dies, made from heavy alloy forgings produced at Barium's Industrial Forge & Steel, Inc., Canton, Ohio.

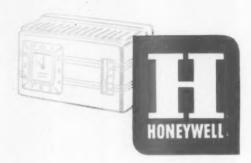


This truck radiator frame is lighter, smarter, lower-cost, because it's stamped, not cast, by Barium's Geometric Stamping Co., Cleveland, Ohio.



#### RONSON ART METAL WORKS, INC.

Orderly filing in minimum space and the preservation of all vital documents are the objectives of the microfilming program at Ronson, "Microfilming is a wonderful answer to our critical space problem," says John J. Roth, Ronson's Controller, "and we have found Bell & Howell equipment distributed by Burroughs to be fast, dependable, easy to operate.



#### MINNEAPOLIS-HONEYWELL REGULATOR CO.

Needed floor space for increased manufacturing facilities at Minneapolis-Honeywell is being released through the reduction of a large volume of old records, by the use of Burroughs Microfilming. Minneapolis-Honeywell also makes use of this equipment for fast, accurate reproduction of current accounts receivable records on microfilm.

These famous names typify the trend to

# Burroughs Microfilming





#### ROYAL TYPEWRITER COMPANY

As a manufacturer of precision communications machines, Royal has a vital need for the preservation of patents, blueprints, trademarks, and other important papers. "The accuracy of Burroughs Microfilming is ideal for this type of recording, and the reduced space requirements greatly simplify the filing of these records," the Company reports.



#### THE INLAND STEEL COMPANY

All important general office records, past and current, are being microfilmed on Bell & Howell equipment, distributed by Burroughs, for the record-security program of Inland Steel Company. Speed and film economy are important benefits obtained through the use of this equipment, with space savings as an important and desirable by-product.

Leading companies everywhere report that Burroughs Microfilming saves valuable time, manpower and space... assures positive record protection in the most efficient manner possible.

Particularly valued are ease of operation, outstanding economy and superlative results—obtained swiftly, surely with this ultra-modern equipment, built by Bell & Howell and sold by Burroughs. Call your Burroughs representative today. Let him show you how you can save with Burroughs Microfilming.

Burroughs Adding Machine Company, Detroit 32, Michigan.



WHEREVER THERE'S BUSINESS THERE'S

Burroughs





## More amazing cases of product improvement through DeVilbiss services and spray equipment



Santa Clara, Calif.

Branch Offices in Principal Cities

Traveling beauty parlor for Diesels speeds painting! A DeVilbias Traveling Spray Booth, with guns, tanks, compressors, hose and exhaust system, carries the painter while he works . . makes scaffolds unnecessary.



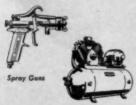
Faster production follows installation of DeVilbiss equipment. Aluminum clapboard (8" wide) is quickly, evenly coated with white paint by three automatic guns. A similar installation paid for itself in 30 days!



Now let engine parts are sprayed with porcelain enamel to withstand intense heat, save scarce nickel! These coatings are much like the wearproof ceramic coating on your bathtub, which is also DeVilbiss-sprayed.



Devilbiss equipment saves time, trouble on hundreds of farm jobs. A DeVilbiss air compressor pumps air into this artesian well . . keeps it flowing, provides water for cattle even in subfreezing temperatures.



Air Compressors



Spray Booths



Portable Spray Outfits

FOR BETTER SERVICE, BUY

VILBISS

SPRAYING EQUIPMENT



AUTOMATIC DRILL at Ford Motor Co. works in tandem with a series of other special-purpose tools, which together automatically perform 60 separate operations. It's a . . .

## New Era for Tool Builders

The machine tool business is going through a process of evolution, and out of it is emerging an entirely new segment of the industry—neither fish nor fowl by industry standards, but a potent adjunct.

In the past, before the automotive industry became the mechanized colossus it now is, there were a few machine tool builders who specialized in designing complicated types of metalworking equipment. When one of them had a brainchild, he would take it to the industry.

But as production methods became more complex and the automotive industry needed more and more specialpurpose machines, the procedure was reversed. The automotive industry began going to the machine tool builders with ideas of what it wanted.

 Old Idea—Special-purpose machines are not new. Industrial engineers have long been alert to the possibilities of combining a number of operations in a single piece of equipment. But so far, few tool builders have been too interested in this angle. They've been too busy with defense orders, or shied away from any idea that might turn them into more or less glorified shop jobs.

However, there are a number of companies up to their ears in the manufacture of these special-purpose machine tools and related equipment. One of these is Lewis Welding & Engineering Corp. of Bedford, Ohio.

• On the Ground Floor—This company, which started only 14 years ago, began by building heavy welded equipment and machine components. Now it will take on almost any task in the field of design and construction of equipment. Lewis frankly admits that, when getting an order for a special machine, its engineers study what other equipment might be used in conjunction with it. Then they try to get orders for the added equipment. The company is particularly interested in the handling





## Engineered for your specific sealing requirements

There are no "standard" packings or oil seals in the complete Trostel line—only standard sizes. The seal itself... in leather or synthetic rubber... is individually developed for the requirements of each specific application... by one or more of three separate and distinct Trostel laboratories.

Working closely with the laboratories, the Trostel tool room designs and builds the tools which make it possible to retain in production the special properties and tolerances originated by the laboratories and pilot plant.

Modern production machinery... specially designed to permit full automatic control of critical time, pressure, and temperature cycles... provides further assurance of consistent quality. We invite your inquiry.



LABORATORY CONTROL



COMPLETE TOOLING FACILITIES



MODERN PRODUCTION MACHINERY

ALBERT TROSTEL & SONS COMPANY General Offices and Packings Division • Milwaukee 1, Wis. Sales Offices: Houston • Los Angeles • Worcester, Mass. • San Francisco • Seattle



equipment on either side of the new machine.

Lewis has also built many machines outside the realm of machine tools. It has built automatic armature winding machines, a tangent bender for refrigerator boxes, an electromagnet assembly press, an automatic machine to mold hollow objects of plastic without use of cores, and a special die-casting machine.

In the more conventional machine tool field, the company has built a grinder for jet blades, special lathes for pipe couplings, and special tapping machines.

• Demand and Supply—The development of the special-purpose machine is simply another phase in the metalworking industries' battle to lower unit costs. Demand for the machines rises when a mass producer finds, after time study and other measurement, that substantial savings could be made if several operations on a part or assembly could be combined in a single machine. Then engineers design a machine that will do the job. Next problem is to find somebody to build it.

Few machine tool companies are willing to make a special machine because of the costs involved. As an alternative to the machine tool maker, the mass producer often has had to turn to a large tool and die shop. But most of these shops are equipped to work in micro-inches. Their equipment is made up of light, highly accurate machines, tool room equipment. Generally, they aren't equipped to build machines. For the average tool and die shop, building a 20,000-lb. machine is like building a cabin cruiser in the basement.

• Skill Important—As a result, a few specialized companies in this field are in on the ground field of a burgeoning new business. What is required for this type of work is an organization whose facilities include big boring mills, radial drills, planers, and other standard tools, plus heavy handling equipment.

Also needed is a flexible engineering department and a wide variety of experience in foundry, welding, machining, hydraulic design, and electrical controls. Engineering personnel must be able to interpret the customers' drawings in terms of the use of the complete machine, correct errors as they are discovered, and, frequently, specify materials and note tolerances and fits as the work progresses. It is often possibleas in the case of Lewis Welding-to suggest improvements in design and engineering that have resulted in better operation, greater strength, improved appearance, and general manufacturing economies.

• Booming-Lewis Welding started to build complete machinery in 1950. In 1951 its shipments of machinery



## How many miles a year do you travel in your office chair?



Here's a Sturgis caster: 2-inch soft rubber wheels; strong plate-type construction; two full rows of hardened steel ball bearings rulling in two separate raceways; self-lubricating bronze atle bearings. Swivels and rolls easily—takes plenty of abuse—stays in—and is kind to fine floors.

More than you think. No long trips of course—just short jaunts of a few inches to a foot or so. But count them some day. Hundreds—even thousands. They add up to a lot of mileage, tough mileage, studded with starts, stops and turns. Very hard on your "tires"—or rather your casters.

The point is this: you don't see the casters on a Sturgis executive chair—they're concealed in a beautifully stream-lined base—but they will give you many miles of smooth, quiet, comfortable riding.

#### Sturgis chairs are engineered for keeps.

You can't see all the quality engineered into a Sturgis chair but it's there in full measure—and because it's there a Sturgis chair is a long term investment in office comfort and efficiency. Today the finest executive, secretarial, clerical, guest and institutional metal chairs are being produced by The Sturgis Posture Chair Company, Sturgis, Michigan.





doubled. The company's backlog of special machinery orders for 1952 has already doubled the total work done in that department during its first two years.

#### PRODUCTION BRIEFS



Mightiest high-voltage transformer made to date, claims Westinghouse Electric, is the one above built-with a twin-for Central Illinois Public Service. Just one of these 250-ton, 28-ft. giants can supply the entire electrical needs of a city the size of Fort Worth.

First private microwave license to go to a company outside the fields of electric-power transmission or cross-country pipelines went to Freeport Sulphur Co. in Louisiana. Federal Communications Commission granted the license because terrain, marshes, and high winds make wire communications in the area impractical.

Steel-alloy castings of low nickel content may ease the nickel shortage for users within the intermediate temperature range (900F to 1400F). Research at Battelle Memorial Institute, Columbus, Ohio, shows that users may be able to substitute a 21% chromium, 9% nickel alloy for material containing 30% to 100% more nickel.

Local financing in Seattle has finally lured aluminum manufacturing to the Pacific Northwest. Colotrym Co. will start construction shortly on a million-dollar plant to produce aluminum moldings and other extrusions. For some time, Seattle has fretted over the fact that its basic aluminum production leaves the state only to return later as finished products.



## What's the big attraction?

The same brilliance that catches Mr. Trout's eye is also found on a wide range of brass and copper products, from costume jewelry to the gleaming brightwork on a ship.

The clean, bright surface of Chase metals doesn't just happen . . , it is controlled in research laboratories by Chase metallurgists . . . it is checked and tested every step along the way to the finished sheet, rod, wire or tube.

Chase brass and copper products are available, subject to government controls, through dealers, and jobbers across the nation and through Chase's 23 convenient mill warehouses.\* Chase Brass & Copper Co., Incorporated, Waterbury 20, Conn.



Chase brass and other copper alloys range in color from rich red to bright yellow. The right color for each product and use is one of the features of Chase research and quality control.



When the Chase Technical Advisory Service is asked to solve a problem by a manufacturer, Chase metallurgists will often find the right answer in this research laboratory test furnace.



Patented Chase Telnic<sup>®</sup> Bronze makes better switchboard parts. Chase research developed Telnic for high strength, excellent machinability, corrosion resistance, and conductivity.

Chase The Nation's Headquarters for

Chase Brass & Copper Co. is a subsidiary of KENNECOTT COPPER CORPORATION

\*Albany† Atlanta Baltimore Boston Chicago Cincinnati Cieveland Dalias Denver† Detroit Houston† Indianapolis Kansas City, Mo. Les Angeles Milwauhee
Minnespetis Newark New Orleans New York Philadelphia Pittsburgh Providence Rochester† St. Louis San Francisco Seattle Waterbury (†Solos Office Only)

som ruoy feem of ... gned by George Nelson ntegrated business interior





AIR POLLUTION like this is now rare, but still costs firms a high price each year.

## Smog Control Now? Or Much Later?

Municipal officials want quick action. But scientists tell Stanford parley that more study is needed.

Most industrialists feel about smog the way the New Hampshire preacher felt about sin: They're against it. The trouble is, the industrialists can't agree on what to do about it.

The difference of opinion, though, is small potatoes compared with the split that has developed between scientific smog experts and municipal au-thorities. That extent of the difference thorities. appeared last week at the second national air pollution conference, spon-sored by the Stanford Research Institute at Pasadena, Calif. Roughly, the two camps lined up this way:

• The scientists said let's not be There's too much still to be learned before smog can be combatted economically and efficiently.

· The government boys said let's get on with it. We can wipe out smog tomorrow if we get tough.

· Sociology-In between this jousting, the Stanford conference developed a mixture of public relations, sociology, and discussions of technical developments.

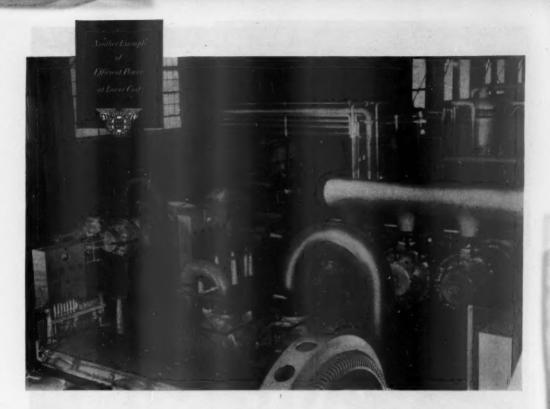
Scientists at Stanford Research backed the conservative approach to cleaning up the mess of smoke and fog. They feel that there is lots more to be learned about air pollution. They all agree that the chemical content of smog has not yet been completely analyzed, and won't be until better measuring instruments are available. So SRI thinks that it's best to go slow before pouring millions of dollars into controls for

Municipal officials such as the Los Angeles County Air Pollution Control District dissent. They claim that plenty is now known about smog-enough anyhow to control it at the source. LACAPD has been administering a tough controls law for four years, believes it has materially reduced visible pollution in its area (BW-Feb.24 '51.p60).

· Public Relations-Industry representatives at the conference stressed another angle:

No matter how you look at it, air pollution control is a public relations problem for business, and an expensive one, too. One tough job is getting a few fundamentals across to the public: the reason for air pollution, why it can't be cured overnight, and the assurance that industry is tackling it. One management man told the conference that industry is making greater progress in air and stream pollution controls in its laboratories than could ever be accomplished by legislation or regulation.

The snowballing cost of pollution



## How these machines help hold food costs DOWN...farm incomes UP



N farming, as in other industries, new methods that boost output benefit producer and consumer alike.

The huge machines shown above, Cooper-Bessemer motor-driven compressors, help one

of America's biggest ammonia plants produce an amazingly effective fertilizer—from air, water and natural gas. This product, nitrogen-rich liquid ammonia, is the most inexpensive, most effective ever discovered for feeding farmlands the nitrogen needed for healthy bumper crops.

The heavy demand for crop-yielding liquid ammonia keeps those big Cooper-Bessemer compressors on the go all the time. They can take it, year in, year out. That's one reason they were picked for the job. Like Cooper-Bessemer diesels and gas engines, they gain by Cooper-Bessemer developments that help cinch prolonged, low-cost operation.

Have you noticed how Cooper-Bessemer seems to have a knack for coming up with new, often revolutionary developments? They are constantly being applied to big compressors and to engines for all kinds of heavy-duty stationary, marine and locomotive power service. So if you have a stake in power, better find out about the new things being done by one of America's oldest engine builders.



New York • Chicage • Washington • San Francisco • Los Angeles • Houston • Dallas • Odessa • Seattle • Tulsa • St. Louis • Gioucoster • New Orleans • Shreveport



## When a bill for \$250 stopped an \$890,000 job ...

The job of building a 4-mile-long levee in a midwestern state was only 20% completed when word got around that the contractor couldn't pay his bills.

The first creditor to appear at the construction office presented a bill for \$250, attached the contractor's office furniture—and work on the levee (total contract price: \$890,000) stopped. But—not for long.

The Travelers Indemnity Company, which had guaranteed performance with a Travelers Contract Bond, took over immediately. Promptly, sixty-five more creditors were paid in full. The Travelers secured a new contractor. Dirt started moving again—and 4,000,000 cubic yards of it were placed to complete the levee. The cost to The Travelers was \$331,241.36.

As this actual case from the files of The Travelers illustrates, there can be many a slip-up between the pledge made in a construction contract and its performance. And when there is a default, it pays to have a Travelers Bond.

Contractors, or those who are letting contracts for jobs requiring a performance bill-paying guarantee, can get full information about Travelers Contract Bonds and Bonding Service from a Travelers agent or broker. If you would like the name of the Travelers representative in your neighborhood, we will send it on request.

MAKE SURE THAT THE CONTRACT WILL BE COMPLETED;

SPECIFY BONDING BY The Travelers

THE TRAVELERS INDEMNITY CO., HARTFORD 15, CONN.

control was backed up by some figures presented by Henry B. du Pont, a du Pont vice-president. He said that the firm has spent or authorized \$25-million, which is double the total of four years ago. Thirty companies in the chemical field have spent an average of \$5-million per year in investments and operating expenses. U.S. Steel's Fairless Works alone has spent \$8-million in engineering and equipment.

To offset these expenses, du Pont said that industry is trying to increase efficiencies and economies in other directions such as production operations and machinery. It must also adjust its plans for control to the limits of its budget. All this is designed to ease the strain on the consumers, to whom pollution costs must eventually be passed.

 Hygiene—Health is another complex angle, according to W. G. Frederick, the director of Detroit's Bureau of Industrial Hygiene. His bureau already is making a study on the tie-in between pollution and health, a project that will take at least 10 years in the Detroit-Windsor area. Frederick said that you can't quite put your finger on the combination, to begin with. Years ago, good health was synonymous with freedom from disease. Today it also means a sense of physical, mental, and social well-being.

Airborne chemicals, in sufficient amounts, have caused occupational diseases in workers. On a few occasions, they have even produced disasters in Pa. (BW-Nov.20'48,p21). The big question is whether the usual levels of air pollutants cause chronic disease, shorten life, and impair physical well-

The question gets still more dishcult when pollution experts must figure in the general health of large populations, influenced by social, economic. and environmental factors. Right now it isn't possible to study health and pollution independently of these factors.

• "Tagged Atoms"-The aerodynamics of pollution is getting a lot more attention from the researchers. Dr. R. D. Cadle of SRI announced a new plan that uses "tagged atoms" to trace smog. The smog molecules will be tagged with radioactive carbon atoms as they leave the smokestacks. Instruments in the area of the stacks will pick up the molecules and determine their habits

and intensity.

Maynard E. Smith, a meteorologist at Brookhaven National Laboratory, suggested an experiment for estimating the best height for smokestacks. He based his proposal on the fact that smoke from stacks in the same area, but of varying heights, can travel in different directions because of different winds

at different levels.



**EXPANDING OFFICE** operations pose problems of personnel, space and office arrangement, the problems G/W TECHNIPLAN, original complete modular office equipment, is designed to solve.

without more space

BASIC "L" UNIT saves space by providing normal working surface and facilities within a compact station.

ANY DESIRED ARRANGEMENT of work stations is possible. Techniplan standard units are interlocking and interchangeable. The precise working facilities required for any job are made available.

DESIRED privacy is provided by standard partitions, of wood and glass, or all wood, interlocked with Techniplan equipment, and readily rearranged for changing needs.

SMART, MODERN appearance is assured by the handsome dignity of Techniplan design, expressed in clean lines and rich wood grains finished in walnut, ideal for private offices. GET THE FACTS—use the convenient check list request for prompt action.

MORE THAN 4000 ways to better business originate with Globe-Wernicke, are sold and serviced by dependable G/W dealers who are easily found in your classified 'phone directory-listed under "Office Equipment."

verse of main illustration) prom worker efficiency.

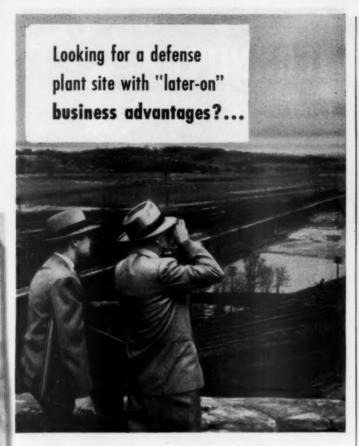


Series of separate office areas with standard partitions for privacy.

#### CHECK this LIST for wanted informationpromptly furnished:

- TECHNIPLAN Facts
- Modern Filing Methods
- ☐ Visible Record Facts
- Special BtG Papers System
- Check above, attach to your letterhead-





Let us give you a comprehensive study of the area "closest to America"... and the strategic advantages it offers in the business battle ahead

Naturally, you're measuring plant site advantages against defense yardsticks, right now. (And there are plenty of convincing, "right-now" reasons for moving to the inland Cincinnati area.)

But later on, when the yardsticks are the inescapable ones of cost and competition, you'll need every strategic advantage you can command... every business advantage the Cincinnati area can give you.

Location, for instance. Central location. In the Cincinnati area, your loading docks are within 400 miles of 40% of the nation's big-buying population. Coal and steel are right next door; and the Ohio River floats heavyweight cargoes in and out at lightweight cost. Major rail trunk lines? Eight of them. And over 100 interstate truck lines. Power supply? Plentiful.

But perhaps the most important advantage the Cincinnati area offers is the whole-

The Union Light, Heat & Power Company

some, "Made-In-America" atmosphere you find here. People still take pride in doing a good day's work. They think straight. They're solid citizens. They have a sense of community responsibility that is reflected in an unusual record of industrial harmony... in clean, honest city government... in fine public schools. Add it all up—doesn't the area "closest to America" have what you're going to med in the competitive period ahead?

For a thorough study and confidential report on the way the Cincinnati area fits your individual location problems, phone or write The Industrial Development Department, The Cincinnati Gas & Electric Company, Cincinnati, Ohio.

CINCINNATI
the city closest to America

Serving homes and industry in the Greater Cincinnati Industrial Area with an adequate and dependable supply of gas and electric

## NEW PRODUCTS



## Writing Slide Rule

An inexpensive vest-pocket slide rule has been built around a mechanical pencil for busy engineers. The metal and plastic device is 6½ in. long and weighs less than an ounce.

The manufacturer calls his Slide Pen Cyl a "ten-in-one precision instrument." Conventional A, B, C, D, L, S, and T scales are debossed on the body and on the slidable, rotatable transparent sheath. The clip is a magnifying indicator. The pencil writes in two colors and carries extra leads and an eraser. It also includes an extendable ruler marked in centimeters and inches, a depth gauge, and a detachable straight edge.

• Source: Device Development Co., 226 W. 4 St., New York 14.

• Price: \$4.85.

## New Plant Insecticide

An insecticide that kills bugs by working from inside a plant or tree is going into big-time production. Systox, an organic phosphate, is absorbed and spreads through all parts of a treated plant. It can be applied by a power-operated sprayer or by aircraft, and is effective against aphids and mites, two of the country's biggest plant pests.

Systox is a systemic insecticide, which means that it cannot be blown away by wind or washed off by rain. It forms an emulsion in water and can be diluted to any desired strength. The product, originally developed by Dr. Gerhard Schrader of Farbenfabriken Bayer, has been undergoing intensive field testing by Pittsburgh Agricultural Chemical Co, for the past three years.

It is reported effective for two to

## "Our RHEEMCOTE 55-gallon drums are travelling billboards that constantly promote the Penetone name and products!"



— H. E. ROBERTS
DIRECTOR OF SALES,
THE PENETONE COMPANY

"In our opinion, the new Rheemcote process of lithographing large steel shipping containers is the most dramatic and worthwhile development in years of packaging progress. In transit, in storage, in use—even on its return trip to the plant—we know that our handsome Rheemcote Drum is selling our Penetone cleaning solvent and degreasing products. Certainly every progressive company depending upon large steel containers will recognize the many advantages of using Rheemcote Drums."

#### Give your products this extra boost!

For little or no more (possibly less!) than your present cost of drum identification and painting, your company, too, can profit from the use of extra-durable, poster-package Rheemcote Drums. Send for the free colorful booklet which gives complete information about Rheemcote poster drums, contains actual facts and figures about the effectiveness of Rheemcote containers as a new and vital advertising medium. Rheem Manufacturing Company, 570 Lexington Avenue, New York 22, N. Y.



## SELL as you SHIP with

RHEEM MANUFACTURING COMPANY . Manufacturing Plants in 22 Cities Around the World

PLANTS AND OFFICES: LINDEN, NEW JERSEY \* CHICAGO, ILL. \* HOUSTON, TEXAS \* NEW ORLEANS, LA. \* NEW YORK, N. Y.
NEWARK, RICHMOND, SAN FRANCISCO, SAN PABLO, SOUTHGATE, CALIF. \* SPARROWS POINT, MD. \* FOREIGN PLANTS BRISBANE, FREMANTEL,
RIO DE JANEIRO, BRAZIL \* MILAN, ITALY \* SINGAPORE

BUSINGAPORE

BUSINGAPO



SOLID STEEL shelves
-that let Hot Air through!

• Distortion-free shelves of Wheeling Expanded Metal are ideal for high-temperature ovens. Not woven, not welded, but pierced and stretched from solid steel, ExM permits uniform distribution of heat...has no soldered joints to fuse... is easily removed. For strength plus free passage of heat, light, air...it's Wheeling ExM — your material of 1001 uses!



WHEELING CORRUGATING COMPANY

WHEELING, WEST VIRGINIA

tanta Bostoa Buffalo Chicago Calumbus Detroit Kansas Cit ulaville Minneapolis Rew Orleans New York Philadelphia Richmond St. Lew six weeks, depending on the dose and the crop type. No harmful residue was found in harvested crops.

The Dept. of Agriculture has approved the new product for control of aphids and two-spotted spider mites on cotton. If these two pests can be controlled by a reputed two applications, as compared with five or six for conventional insecticides, Systox may save cotton growers millions of dollars.

Tests are still being made on tobacco, fruit, vegetables, grain, and forage crops. The insecticide appears to have no effect on the growth of the plant or on beneficial insects like honeybees.

• Source: The Pittsburgh Agricultural Chemical Co., 350 5th Ave., New York, a division of Pittsburgh Coke & Chemi-

• Price: Application-\$1.50 to \$2.00

per acre.

#### **NEW PRODUCTS BRIEFS**

An intercom system designed to expand with your company has been introduced by Talk-a-Phone, 1512 S. Pulaski, Chicago. Eleven optional features can be added as needed to handle anything from private calls to paging and remote use.

X-ray patients can now be assured that their treatment is confined to the diseased area by a small radiation monitor developed by General Electric. The gadget, about the size of a quart fruit jar, is placed beside the patient and indicates the radiation present in a given area.

New eye-glass lenses have been designed by American Optical Co. to help correct crossed eyes. They force the eyes to work together normally by obstructing vision in the eye that is out of line.

A branding paint for sheep that is permanent, yet will scour out, has been perfected by the Wool Laboratory of the U.S. Dept. of Agriculture.

A radiant heating unit built into a rubber mat has been developed by U.S. Rubber Co.'s Passaic plant. The mat can be used to warm the feet and legs of workmen in unheated or refrigerated areas. It plugs into any 110-volt lamp socket or baseboard outlet.

Brown-Brockmeyer Co., Dayton 1, Ohio, has developed a simple dialing device to change the rotation or voltage on its new line of capacitor motors in a few seconds. A selector-equipped motor has only two leads. This means it can be shifted around the plant even by inexperienced workmen.



#### **OUTSTATE MICHIGAN**

Another of America's great chemical producers -Hooker Electrochemical Company - has decided to take advantage of the outstanding benefits offered by Outstate Michigan.

It has announced that it will build a modern chemical plant at Montague, Michigan. The site is on White Lake, which opens into Lake Michigan. This new plant, supplementing Hooker's present plants in Niagara Falls, N. Y., and Tacoma, Wash., will supply chemicals to the industrial Midwest.

Said President R. L. Murray:

"From a distribution point of view, the White Lake site is an excellent location. It also affords deepwater transportation, which is important to a modern chemical plant of this type."

A vast bed of underground salt was a factor in selection of the site, since Hooker Chemicals are produced "From the Salt of the Earth."

Hooker's many chemical products, including chlorine, caustic soda and hydrogen, are used by more than 30 different industries.

Hooker Chemicals are important to paints and varnishes, metals, disinfectants, food and beverages, water purification, petroleum and lubricants, rubber, pulp and paper, perfumes and cosmetics, pharmaceuticals, weed killers, insecticides, leather, plastics, rayon and cotton goods, dye-stuffs and colors, soaps and detergents.

Outstate Michigan has been recognized for many years as an exceptionally good location for chemical plants, for industries that use large volumes of chemical products, for manufacturers or processors of almost any kind.

If you are looking for a plant location, we invite you to make use of our confidential free service. Call, wire or write today.

#### Check These Advantages of Outstate Michigan

\* Exceptionally High Percentage of Skilled Workers \* In the Great Market Center of America ★ Wide Range of Materials, Parts and Supplies ★ Diversified Industries ★ No State Income Tax \* Dependable Electric and Gas Service at Low Rates \* Desirable Plants and Plant Sites \* Excellent Living Conditions and Cultural Opportunities

\* Woods, Lakes and Streams That Make This a Foremost Vacation Area

N-28-BW

FOR INFORMATION CONTACT INDUSTRIAL DEVELOPMENT DEPT.



#### COMPANIES



NEW FACTORY is outlined at left, alongside older Philip Morris units at Louisville, Ky. Addition makes it the biggest cigarette factory in Kentucky. What goes on in the plant is shown in pictures at right and below. First . . .



2 Tobacco rides to the cigarette-making machines, which turn out 1,250 cigarettes a minute. Λ "catcher" here inspects them.



3 Cigarettes next go into the automatic packer. The packs march out on a conveyer belt at the rate of 119 per minute.

#### Philip Morris: Outstripping the Pack, But

This week some 60 bankers and financial writers trekked down to the Kentucky tobacco country. The occasion: the unveiling of a \$10-million plant, stemmery, and warehouse in Louisville by Philip Morris & Co., Ltd., Inc.

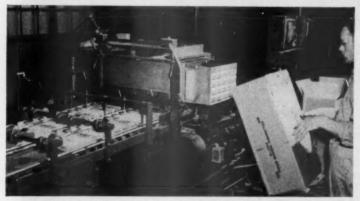
The new setup puts Philip Morris production in tune with its spurt in sales. In a steadily expanding industry, PM's growth has far outpaced that of the other major brands since World War II. While U.S. cigarette sales are up an estimated 17% since 1946, sales of the Philip Morris brand have jumped about 77%. The company hasn't yet released its fiscal 1952 sales figure, but it may be around \$306-million.

• Yesteryear's Troubles—No one has better reason to be impressed by PM's strides than the Wall Streeters. Not so long ago, the company looked to investment men like a bad bet. In 1946, in the midst of a big financing operation, Philip Morris shocked Wall-Street with a sudden plunge of earnings. PM had to let subscribers cancel most of a \$14.5-million issue of preferred stock it had just offered. It abruptly postponed an offering of \$15-million in debentures.

Behind the financial fiasco was the fact that the postwar conversion had



1 Tobacco is removed from hogsheads. Actually, half-ton hogsheads ride to this point on dollies and the wooden containers are lifted off. Then...



4 Finally, Philip Morris cartons are automatically stowed in packing cases, 50 cartons to the case. From there on, it's up to a high-powered sales drive.

#### Challenged

thrown the company way out of gear. Military orders were canceled suddenly; when the cigarette shortage ended, sales of Philip Morris' war-boomed, premiumpriced, Marlboro cigarettes dropped sharply.

Most important, while filling unrealistic orders from dealers who had overestimated demand, Philip Morris had lost out in the race to get back to foil and cellophane packaging. As a result, millions of cigarettes got stale sitting on store shelves.

 One-Man Show-The predicament was partly due to factors that tripped up the whole industry. But it also reflected some serious managerial disorders. PM, which had been dubbed tobacco's prodigy in the prewar period, had become big business. But it was still being run like a one-man operation.

That man was, of course, Alfred E. Lyon (cover). Almost from the time the Philip Morris English Blend was launched in 1933, shrewd, dapper Alfred Lyon had been the pivotal figure

behind the brand's steadily growing bite into the cigarette market.

Lyon had a lot to do with the friendliness of dealers that had helped get PM started in the market. As executive vice-president in charge of sales, he had planned the advertising, effectively promoted pint-sized, shrill-voiced Johnny Roventini as PM's living trademark, built up a sales force proportionately bigger than those of his Goliath-like competitors. He had piloted PM into fourth place in the cigarette league in 1938 and had kept it there. He has also handled the firm's less important products: Marlboro, English Oval, Spuds, and Dunhill cigarettes, and Revelation, Bond Street, Country Doctor, and Lyon's Own pine tobaccos.

tor, and Lyon's Own pipe tobaccos.

• Fresh Start—The 1946 crisis convinced Lyon, by then president of the firm, that Philip Morris needed a fresh start. He was ready to take drastic steps to save PM's reputation and revamp its organizational shell. First, he supplied fresh cigarettes to replace most of the stale ones that were alienating smokers. Ever the salesman, he then unloaded many of the stale packs in importhungry Europe. Meanwhile, Lehman Bros. placed a \$32-million debenture issue with Equitable Life Insurance Co.

Lyon's next step was to hand over the administrative and financial reins to O. Parker McComas, formerly vice-president of Bankers Trust Co. As executive vice-president, genial, capable McComas promptly got to work streamlining the outgrown organization. He cleared the lines of authority, put greater emphasis on specialists, established better liaison between sales and production, and revamped budget and inventory controls. Distribution time was cut in half.

• Sell, Sell, Sell—From the point of view of sales, the most important thing about McComas' arrival was that it freed Lyon from administrative worries, so he could concentrate on his forte—the all-important job of selling. Together with his advertising agency, Biow Co., Lyon buckled down to planning the biggest and most aggressive campaign in the company's history.

Since 1933, Philip Morris advertising had consistently played upon the everpopular theme that its product was less irritating than every other cigarette, stressing that it had medical support for its claims. Now the drumbeats became hammer-blows.

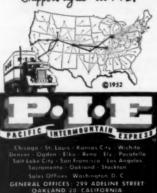
In 1948 PM confronted the smoking public with a new ailment-cigarette hangover. It said PM's wouldn't give this type of hangover. In 1949 PM became more direct in its challenge to competitors. It started showing smok-



# ..AND THAT GOES DOUBLE FOR SAFE ORIVING

With America's motor freight industry, "safety first" is not only a watchword—it is a must. P-I-E drivers are professionals in every sense of the word; carefully selected, thoroughly trained, continuously supervised. Hundreds of professional motor freight drivers like these have compiled astonishing safety records for accidentified driving over millions of miles of motor freight routes. Their skill is recognized by safety awards presented them annually by the American Trucking Associations and the National Safety Council.

Shippers agree-it's P.I.E!



ers how to give themselves the nose test, so they could see that PM's had less sting than the others.

 Results Count—It didn't take long to see that smokers were impressed. Between 1947 and 1950, PM's soared in the U.S. market from about 23billion to around 40-billion, while Camels gained an estimated +billion; Luckies and Chesterfields lost ground. Worried competitors began bringing forth an array of sniff tests, taste tests, and 30-day tests.

Part of the effectiveness of the campaign was, no doubt, the sheer weight of bigness. PM had upped its advertising budget. But the increase in effort was not great enough to account fully for the startling results.

Many tobacco people are convinced that hard-hitting advertising with a test-it-yourself slant is the key to PM's spurt after the war. For one thing, advertising has always been especially important in this industry. Since the major brands lack the differentiation of features and fashions that you get in other kinds of products, brand loyalties aren't so firmly entrenched. There's more impulse and irrationality involved, hence greater susceptibility to advertising.

 Any Difference?—No one is really sure why PM's pitch was so successful.
 Philip Morris people claim, at least for publication, that there is a perceptible difference in irritation when you smoke their product.

All the companies use a chemical agent to keep their cigarettes from drying. PM claims its agent, diethylene glycol, is less irritating to the throat than glycerine, which other companies use. Some tobacco people agree this makes a slight difference, but others say customers don't notice it. Recently, the Federal Trade Commission's trial examiner, after examining PM's advertising claims, concluded the difference in moistening agents is not significant. He ordered PM to cease and desist. PM is appealing.

Lyon says the pitch is good because it gets at the smoker's guilt complex—the feeling that smoking is an indulgence he'd be better off without. The idea is to play down the thought of possible harm, convince him he didn't smoke too many—just the kind that is too strong. Moreover, the theme carries the idea of mildness, which is especially important in snagging women as customers. Women not only are smoking more, but also do more of the family cigarette buying, in cartons via the supermarket.

Pays to Advertise—Philip Morris generally spends more for advertising per cigarette sold than the Big Three. It feels that's a first principle of survival and growth in the rough tobacco competition. PM was one of the first to

jump into television, and it earmarked one-third of its 1951 advertising budget for TV.

Meanwhile, Johnny is busier making calls than ever, spending a lot of time promoting carton sales in big outlets, such as supermarkets (BW-Dec.1'51, p58). This drive points up PM's concern with adapting to the changing marketing pattern for cigarettes.

To make sure his brand is given a prominent display spot, Lyon has always had a knack for dreaming up ways to woo dealers—including washing their windows and dusting their shelves. Now he's up against the problem of how to keep up the same friendly relations in the supermarket age. It's one of the reasons he has brought in new, young promotional blood, and organized part of his staff to specialize in this sphere. They work out partnership-selling gimmicks, give supermarket men hints on how to utilize space, arrange stocks, and set up displays.

• Losing Momentum—A major concern of Lyon and McComas is that this year, for the first time since PM's dramatic comeback began in 1948, sales gains have faltered. In fact, in 1951 they lost a little ground. One theory is that PM's advertising has gone slightly stale, lost some of its impact now that most other brands have turned to a similar pitch. Lyon and Biow are beating their brains preparing a new campaign for fall.

But the big point seems to be that Philip Morris, like the other major brands, is feeling the hustling competition of the king-size and filter-tip cigarettes. Pall Mall, for example, is moving up fast and may overtake PM by yearend. With their stress on mildness and filtering of nicotine and tars, the king-sizers seem to have seized the ball, at least for the moment.

Meeting Challenge—Lyon and McComas are picking up the gauntlet by repackaging and promoting their own king—Dunhill. They are now pushing it in experimental cities in the Middle West and California. At the rate they are going, Lyon thinks they could sell around 4-billion cigarettes a year on a nationwide basis.

The firm is also launching a new research program, plans to explore possible uses for tobacco waste products such as dust and stems. It recently hired Dr. Robert DuPuis as director of research and development, and it expects to build up a multimillion-dollar laboratory in the near future.

Looking ahead, Lyon and McComas see themselves riding a wave of industry expansion. They feel they need look no further than the birth rate and the growing affinity of women for cigarettes to predict confidently that they will be selling at least twice as many PM's in 1970.

he best of a bumper crop ... The same of the

#### HIGH PRODUCTION OF HEAVY-DUTY BUMPER GUARDS CALLS FOR SHARON' QUALITY DEEP-DRAWING STEELS

Tough, shock-absorbing bumper guards must be decorative as well as functional. Their manufacture demands heavy gauge steel that will take a deep draw easily without showing strain.

Many leading manufacturers of bumpers and bumper parts specify Sharon bumper steels whenever

possible, for their experience tells them they can expect uniform top quality steel that can be easily deep drawn at mass production speeds without a trace of strain to blemish the finish.

For quality steels in large quantities specify Sharon and you'll be sure of the finest.

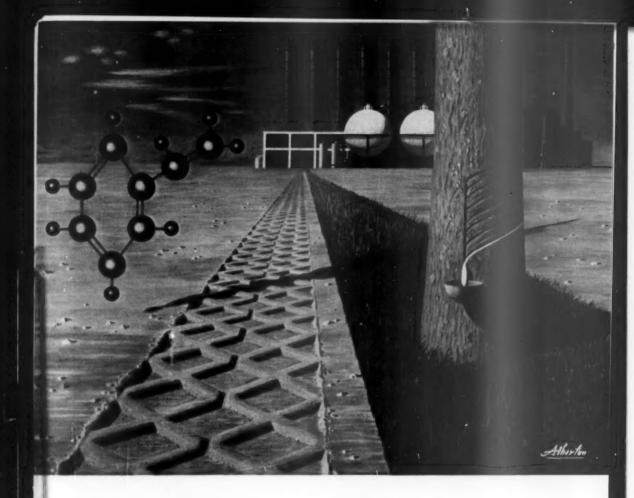
'Specialists in STAINLESS, ALLOY, COLD ROLLED and COATED Strip Steels.

#### SHARON STEEL CORPORATION

Sharon, Pennsylvania

DISTRICT SALES OFFICES: CHICAGO, ILL., CINCINNATI, O., CLEVELAND, O., DAYTON,
O., DETROIT, MICH., INDIANAPOLIS, IND., MILWAUKEE, WIS., NEW YORK, N. Y.,
PHILADELPHIA, PENNA, ROCHESTER, N. Y., LOS ANGELES, CALIF., SAN FRANCISCO,
CALIF., MONTREAL, QUE., TORONTO, ONT.

For Information on Vitanium contact Mallory-Sharon Titanium Corp., Niles, Ohio



#### Rubber ... and The National City Bank of New York

It's hard to believe synthetic rubber was almost as important in the last war as the atomic bomb. Yet if our scientists and production-wise business men had not mastered, almost overnight, the tremendous problem of producing hundreds of thousands of tons of synthetic rubber, we'd have been hard put to keep our industrial and military machines rolling.

Today, this synthetic rubber capacity is almost as invaluable as it was then. It acts as a brake on the price of natural rubber. It supplied 63 per cent (nearly 800,000 tons) of the rubber our country used last year. And should we be cut off again from natural rubber, synthetic plants could quickly, be expanded to take care of most vital needs.

Our country uses 60 per cent more rubber today than it did ten years ago. Total rubber consumption last year was about 1½ million tons. Sales of rubber

products totaled around \$5 billion, and new highs are anticipated this year.

For large-scale financing, as well as for day-to-day banking services, rubber companies turn often to The National City Bank of New York. Like many others, they find advantages in National City's complete facilities, 140 years of experience, and worldwide banking network. Overseas this network includes 56 National City Branches and correspondent banks in every commercially important city. The Bank has 67 Branches in Greater New York, and correspondent banks in every state.

Member Federal Deposit Insurance Corporation

First in World Wide Banking



#### COMMUNICATIONS



PRESIDENT Marshall of WU and . . .



STOCKHOLDER John Fox both want ...



TELETYPE SYSTEM now owned and operated by AT&T because . . .

#### Western Union Seeks a Broader Base

Western Union Telegraph Co. has suddenly begun to feel its oats. Last week it startled almost everybody who was listening by proclaiming publicly that it now wants to become the nucleus of the record-message business. The first and most important step in the direction of this expansion, it said, was to buy up the lucrative teletype system now owned and operated by American Telephone & Telegraph Co. (BW-Apr.26'52,p38).

No Official Offer-Most startled of

• No Official Offer-Most startled of all seemed to be AT&T. One reason was that on several previous occasions, stretching over a period of 35 years, Western Union has had a chance at the teletypes, has always been cool to the idea of taking over. Another is that the telegraph company hasn't approached AT&T with its latest offer; it has simply expressed its desire through the press. Said one AT&T official: "They've been talking to everybody but us." (WU explains that the reason for this is that it has been preoccupied with

trying to settle its eight-week strike.)

Most puzzling of all, says AT&T,

is what Western Union calls the direct cause of its new interest. It stems from a question asked at the recent AT&T stockholders' meeting: Would AT&T be willing to sell its teletype system? Vice-president C. F. Craig answered, in essence, that it had no desire of its own to sell. But it would consider an offer, provided it were determined that unloading the teletype setup would be in the public interest.

• Invitation?—Western Union took this to be nothing short of a direct invitation. But AT&T says that this has been its philosophy for years and that Craig's answer didn't deviate from that policy to any degree. In fact, the company points out, this policy was set down for the record before the President's Communications Policy Board (Stewart Committee) in late 1950. Craig's statement closely paraphrased

• What Factors?—What, then, lies behind Western Union's sudden interest? One guess is that it is due to John Fox, Boston financier. He recently bought 170,000 shares of WU stock,

becoming one of the largest single stockholders. Noted as a man who invests his money only in "going" concerns, he is given the credit by some for turning Western Union from a philosophy of cautious timidity to one of expansive boldness.

That may well be the key factor. But there are others beyond that. One is that WU has lately been showing a handsome profit (well over \$5-million last year). That's a big contrast to the way things had been going. Ever since the stock-market crash, the 100-year-old utility has been in the red more than in the black. But in 1950, after some particularly rough postwar years, the company really picked itself up off the floor (BW-Sep.23\*50,p96). It has been on its feet ever since.

• Life and Death—But WU realizes that its present prosperity is due more to a big rise in traffic as a result of the Korean War than to any other single factor. Despite a lot of cost cutting via mechanization, it figures that a big drop in traffic can throw it right back into the red. WU openly states that its



in Clubs . Hotels . Restaurants

#### for FAST FOOD SERVICE

in Diners • Drive-Ins • Drug Fountains

#### for COOKING IN QUANTITY

in Hospitals • Cafeterias • Chain Store Restaurants

### Here's Proof of Profits . . . they all cook with *GAS* at

Take a look from the air at the fabulous eight square mile area of land that is Miami Beach and you'll get some idea of the size of the job of feeding more than 200,000 people daily during the season's peak.

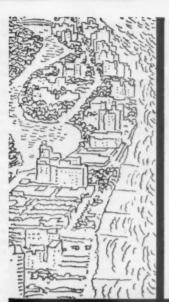
How is it done? Why, with GAS of course.

Want the proof? Just look over this list from A to Z—these are the hotels, restaurants, diners, cafeterias where the thousands of visitors are fed. They're all using GAS and Gas Cooking Equipment.

Why is this list so long? Just ask the users—they'll tell you why GAS is best for every kind of food preparation and service. If you want cost studies for comparison, call your Gas Company Representative.

AMERICAN GAS ASSOCIATION
420 Lexington Avenue, New York 17, New York





## Miami Beach

-7 1

#### HOTELS

Abreams
Adobar
Adobar
Adobar
Alamac
Astor
Beacon
Beacon
Belmar
Bounbar
Bounbar
Galvert
Galvert
Gari
Charles
Clyde
Cornel
Cornel
Delano
Dorest
Dreka
Baleigh
Reddin
Maxino
Dorest
Reddin
Rio
Maxino
Dorest
Reddin
Rio
Maxino
Dorest
Reddin
Rio
Maxino
Trites
Sebor
Saxony
Surf
Surrey
Triton
Surrey
Triton
Saxony
Triton
Saxony
Welford
Admiral
Admiral Governor Granada Jefferson Kenmore Kimbeety King Cole Kingston Lombardy May fair Monterey National Nautiha New Surf Normandi Plymouth President Richmond Sagamore San Juan Sea Gull Sea Gull Sea Gull Sea Isla

Blackstone Blue Waters Breakwater Broadripple Caribbean Casablanca Casabianea
Casabianea
Coral Reef
Delmonico
Dorchester
El Morocoo
Emerald Isle
El Morocoo
Emerald Isle
Fleetwood
Floridian
Gulfatrena
Lodian Creek
Indian Queen
Kenilworth
London Arma
Martinique
Marwellte
Marwellte
Marwellte
Coean Grande
Ocean Surf
Ocean View
Patrician
Foinciana
Ritt Plana
Ritt Plana
Rity Plana
Rity Plana
Rity Plana
Royal Palm
Royal York
Sawoy Plana
Sawoy Clah
Shore Clah
Shore Clah
Shore Creet
Shelborre
Shelborre
Chall
Shore Creet
South Seas Sovereign
Strath Haven
Surfoumber
Vanderbilt
Versailles
White House
White House
Winter Haven
Atlantic Towers
Barclay Plasa
Berkley Shore
Blue Horison
Collins Parks
Edgewater Beach
International
Lade de Caper
Lord Baltimore
Grand Palace
Grossinger Ptst.
Lord Baltimore
McF. Deauville
Marine Terrace
Morroe Towers
Netherlands
Normandy Plasa
Palmer House
Pres. Medison
Pres. Medison
Pres. Medison
Pres. Medison
Stephen Footee

CLUBS
Bay Harbor Munk
Bal Harbour B&T
Bath Club
Elka Club
Elka Club
Town & Beach
Surf Club

#### NIGHT CLUBS

Beachcomber Brook Club Celebrity Club Celebrity Club
Ciro's
Copa City
Five O'clock
Golden Slipper
Hickory House
Latin Quarter
Mother Kelly's
Twenty-Two Club

#### HOSPITALS

Miami Heart Inst. Mount Sinai St. Francis

#### RESTAURANTS

Alperts
Al's Saml.
Asti's
Badones
Buddys's
Bureans
Buddys's
Bureans
Buddys's
Cameo Dr.
Cameo Dr.
Chary'a
Chin Lee
Crowar Dr.
Dillards
Embers
Franks
Genova Dr.
Dillards
Embers
Franks
Gino's
Embers
Franks
Gino's
La Roe
Grotto
Harfenist
Heory's
Joniors
La Roe
Maurins
Maurico's
Martins
Martins
Martins
Maurico's
Martins
M Wolfies—2
Lee's "C'
Grow's Carbay House
Fan & Bill's
Cathay House
Fan & Bill's
Fisherman's Wharf
Flamingo Rest.
Food Center
Food Enter
Food Enter
Food Enter
Golden Pragon
Hotel Pharmsoy
Howard Johnson
Jolly Fisherman
Hygrade D & R
Kress & & 10
Lighthouse
Lincoln Manor
Little Hungary
Little Sann
Manor
Little Sann
Hore
Little Hungary
Little Sann
Hore
Finny's Rest.
F

#### CAPETERIAS



". . . ability to negotiate a deal may mean the difference between life and death . . ."

WESTERN UNION starts on p. 77

ability to negotiate a deal to get hold of the teletype system may mean the difference between life and death.

The reasoning is this: Under the present system, WU says, its operating costs run too high to assure a healthy profit, in good times and bad. That, in turn, comes from the fact that it doesn't get what it considers enough volume business. Thus 77% of its gross revenue comes from 150 large cities. Yet it must maintain some 4,000 other offices in smaller communities and is required by law to take and deliver messages in just about every village and hamlet.

· Separate Items-This is a terrific drain on resources because the vast majority of WU's business lies in the \$1 to \$5 telegram. Ultimately, WU must de-liver each one separately and individually; there's no way to bulk them. To help offset this high-cost operation, WU wants to get the teletype system, which it says gets the cream of the volume traffic. Last year AT&T grossed \$60-million from that system-about one-third of Western Union's \$200million gross. And WU thinks that this \$60-million has a higher level of profit than any \$60-million it takes in.

Getting the teletype system would be just the first step, according to WU's present plans. It says now that it wants to become to the record-message business what AT&T is to the telephone business. Therefore, it dreams of someday getting under its wing all the 13 other companies now in competition for cables and radiogram service. Also, it is trying to get way out in front in the facsimile business. Unless it can achieve all this, it says, WU will probably fall into the hands of the government.

· Tough Competition-WU does not feel that its financial struggles have been due to inefficient operation; instead, it blames them on competition from too many sides. A big chunk of that competition comes from AT&T, both in telephone and teletype. On top of that has come air mail, which WU claims it is subsidizing through the excise tax it must pay (it amounted to \$37-million last year).

Finally, WU says it must compete with the federal government's telegraph system, General Services Administration. This serves 56 cities, which supply 60% of WU's revenue, sends out 84-million words a year. And the number of government telegrams handled by WU has dropped to less than 24%

of its 1943 level.

Actually, WU is apparently stretching a point here. The government says its system is nothing more than a TWX teletype system leased from AT&T at regular rates. It adds that it uses it because it is cheaper than Western Union.

. Who's Right?-Thus WU is promoting the idea that it is the logical company to hold the reins of the recordmessage business, and that doing so will keep it in good health as a private corporation. Whether or not that would be true depends on which side of the

fence you're on.

AT&T, for example, thinks that WU puts too much faith in the idea that the teletype system will give it a greater ratio of profits than its telegraph system does-even though the teletype setup is divided into two parts. The firstand oldest-part is the leased-wire system, which first became operative in 1915. Under this system, a machine in one place can be connected to one or more machines elsewhere for instantaneous communication at any time during the period of leasing. Nobody else can use the wire connecting the ma-

The other system, developed in 1930, is called the teletypewriter exchange service, commonly known as TWX. This works much like the telephone system. Instead of a private wire, you have a teletype machine that can be connected with any other machine through a central office switchboard. When you are finished using the machines, the connection is broken off, as in a telephone conversation.

· Volume Profits?-For a leased wire, you pay a flat rate for the period in which you use the wire. The price is the same regardless of whether you send 10 words or 1-million. In TWX, you pay for the time you have the connection set up, as in a telephone conversation. In other words, you have TWX if you don't have enough business to warrant a private wire. So AT&T's point is that volume business is not so much of a factor in teletype profits as it appears.

On the other hand, teletype machines do away with several of the most cost-consuming items in the WU setup -including the operator required to send the message and the final, per-

sonal delivery.

· Uncertainty-AT&T also isn't sure WU is serious about wanting to buy its teletype system. It says that the telegraph company has turned down one opportunity after another. In fact, its inventors offered the machine to WU right at the beginning, in 1915. WU said no-because it would have to take over manufacture, and it had always limited itself purely to service. So AT&T took it over.

When it put TWX into effect in

## For Passenger Cars, Diesel Locomotives and now FREIGHT CARS





## The dinner that was never served

The housewife (who was also a registered nurse) was cooking dinner at home. Just as she put a piece of chicken in the pan, the boiling hot grease spattered. Her face and lips were painfully burned.

The fried chicken never reached the table.

For two weeks the housewife was in the hospital. For six weeks she was unable to take a nursing call. Luckily she was insured with a U. S. F. & G. Personal Accident Policy. Her medical expenses of \$124.32 were paid in full and she also received \$278.57 for the period she was unable to work.

Accidents occur where they are least expected . . . in the home, in the office, in school and to or from work. A Personal Accident Policy will not prevent accidents, but it can help repay the expense they cause.



Your local agent is constantly ready to serve you. Consult him as you would your doctor or lawyer. For the name of your nearest U.S.F. & G. agent, or for claim service in an emergency, call Western Union by number and ask for Operator 25.

U.S.F.E.C. CARLALTY FIDELITY-SURETY

United States Fidelity & Guaranty Company, Baltimore 3, Md. Fidelity Insurance Company of Canada, Toronto

## "... Mother Bell does not consider its teletype system a sort of stepchild ..."

WESTERN UNION starts on p. 77

1930, AT&T says, it offered WU at least a partnership in the business. Once more, the telegraph company said no. Then, around 1943, WU showed a new interest, told AT&T it wanted to buy the whole teletype system. So AT&T began making an inventory to find a selling price.

Two years later, after spending nearly \$2-million and still not having finished the inventory, AT&T was notified by Western Union to call the whole deal

off

• Intercommunication—Finally, Mother Bell insists that it does not consider its teletype system a sort of stepchild, as Western Union implies, or that it really belongs in the record-message category: Teletype, says AT&T, is actually two-way communication, like the telephone; not one-way, like the telegram. Since AT&T's principal function is intercommunication, the teletype fits neatly into the pattern.

In fact, says ÅT&T, it fits so neatly that it will be difficult to move if a deal for selling it goes through. By this time, it has become thoroughly integrated with the rest of the Bell System, with many of its employees and much of the equipment serving both telephone and teletype. Complex switchboards and other electrical equipment must be moved or rebuilt by Western Union—a tremendous job.

• Changes—WU takes a less forbidding view. It points out that AT&T and WU use each other's carrier facilities almost interchangeably anyway, that there would be little if any change in that setup. Also, it has been constantly improving its own transmission facilities. Not sol long ago, the familiar telegraph lines along railroads were the main carriers for WU telegrams. Today they are used mainly by the railroads for their own dispatching and other messages.

In their place, WU has built cable systems that will carry many times as many messages over a single set of wires. On top of that, it has developed a radio beam system that can carry as many as 2,000 telegrams at once. Finally, it has mechanized its whole telegram-sending equipment so that much

of it is now automatic.

In any case, the deal with AT&T is still a long way from even being started, much less from going through. But Western Union seems determined to follow through on the deal this time, if for no other reason than that it sees in it the real chance for survival.



• Because distracting noise is so harmful to efficient business operation, practically all new building specifications include acoustical ceilings for sound absorption. However, just because your present building was constructed before sound control became an established science, there is no reason for you to be handicapped by noise. You can have a Johns-Manville Acoustical Ceiling quickly installed over your present ceiling.

Johns-Manville FIBRETONE offers an acoustical ceiling which is highly efficient and modest in cost. It consists of 12" square panels of sound-absorbing materials in which hundreds of small holes have been drilled. These holes act

as "noise-traps" where sound energy is dissipated. Fibretone is predecorated, can be painted and repainted, and is available with a flame-resistant finish.

Other Johns-Manville Acoustical Ceilings include Permacoustic\*, a textured, noncombustible tile with great architectural appeal; Transite\*, panels made of fireproof asbestos; and Sanacoustic\*, perforated metal panels backed with a noncombustible, sound-absorbing element.

For a complete survey by a J-M acoustical expert, or for a free book entitled "Sound Control," write Johns-Manville, Box 158, Dept. BW, New York 16, N. Y. In Canada, write 199 Bay Street, Toronto 1, Ontario.



#### **Johns-Manville**

Movable Walls-Terraftex and Asphalt Tile Floors-Corrugated Transite'-Floxstone' Built-Up Roofs-Etc.

## PAGE GAGE

takes the guesswork out of page-end typing!



only on the new

## Smith-Corona

OFFICE TYPEWRITER

This one "Luxury Typing" feature saves retyping hundreds of letters each month. PAGE GAGE warns typist when she is 2½ inches from the bottom of the page—and keeps showing how much space is left . . . right to the very end! See PAGE GAGE demonstrated . . . .

Call any

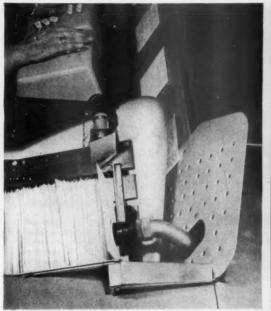
#### Smith-Corona

**Dealer or Branch Office** 

L C SMITE & CORONA TYPEWEITERS INC STRACESE I NY Ganadion factory and effices, Taronte, Ontario. Makers also of famous Smith-Cerane Partable Typewriters. Adding Machines, Vivid Deplicators, bibbons and Carbons.



LETTERS TRAVEL from the right foreground, are picked up one at a time by the device in the corner, then parade past the mail sorter, who pushes buttons for destination.



Diversion (Carl Co

ONE BY ONE, letters are picked from the pile by this suction device, then dropped on a belt.

After passing the sorter and being routed, letters (right) drop to another belt that feeds them automatically to the proper boxes.

#### Sorting Machine Speeds Belgian Mail



ALL SORTED, letters are removed from boxes by a man behind the scenes. Each box contains mail addressed to a specific town, province, or country.

Post office workers prize their ability to scale a letter 10 ft. into the correct mailbag for routing to some remote part of the country. It may become a lost art, though, if the Post Office Dept. adopts the mail sorting machine that's now being used in Antwerp, Belgium (pictures).

No more tennis elbow and swollen feet for the Antwerp mail sorters. They now sit comfortably at the controls, watch the letters pass before their eyes, and press buttons that direct the letters to the right boxes. They can bless the name of F. Schreuer, who invented the machine.

By the old method, a good sorter could handle about 20 letters a minute, distributing them among 80 boxes. With the help of the new machine, he can distribute 200 letters a minute and break the classification down among 300 boxes. All he has to do is remember the 300 different numbers; each number represents a box for mail directed to a town, province, or country.

The sorter sits at case while the letters file in front of him on a conveyer belt. As he glances at each address, he presses buttons keyed with



# Gerber's Baby Foods finds EXTRA PROFIT Opportunities in a MOA\* location

"TEN years' operation of our plant in the Metropolitan Oakland Area more than justifies choice of this location," says Mr. William U. Hudson, Vice President in charge of Production and Research for GERBER's, world's largest producers of prepared infant foods. He continued:

"Abundant availability of raw produce and the high quality of Oakland's labor supply make possible relatively level production in an industry traditionally noted for production peaks and valleys.

"Growth of the area puts our plant in a strategic location. Distribution to Western consumers has been immeasurably simplified. Our productive capacity has grown consistently -and we now can produce more than one million cans per day.

"Were we to make the choice all over again, in light of 10 years' experience we would not change our original decision. This area will continue to expand and we are determined to grow with it."

SAVINGS in shipping time and costs ... skilled labor supply... larger share of the nation's fastest-growing market... an abundance of raw materials... ideal working climate—no matter which of these profit-making advantages you demand, you'll get them in a Metropolitan Oakland Area location. Investigate today.



\*MOA stands for Metropolitan Oakland Areaincludes all of Alameda County, California. Industries locating here can take full advantage of incentives and benefits offered by the Federal Government to plants in locations meeting specifications of the National Industrial Dispersion Program. Write for particulars.

#### \* FREE Book Gives You the Facts

"Why They Chose Metropolitan Oakland", a 16-page book outlining the advantages 228 national firms find in this area, is yours for the asking. Available also: Individual Data Sheets dealing with Climate, Distribution, Living Conditions and Markets. Write today, in strictest confidence.

## METROPOLITAN OAKLAND AREA CALIFORNIA Suita 185 - 427 THIRTEENTN STREET - OAKLAND 12, CALIFORNIA

ALAMEDA - ALBANY - BERKELEY - EMERYVILLE - HAYWARD - LIVERMORE OAKLAND - PIEDMONT - PLEASANTON - SAN LEANDRO - RURAL ALAMEDA COUNTY the destination box; the letter then goes obediently on its way to its allotted box. Collectors empty the boxes as fast as they're filled.

So far, the sorting machines are in use only at the central post office in Antwerp, but, if the system continues to work as well as it has, they'll be installed in outlying post offices, too. U. S. postal authorities are keeping an eye on the Belgian experiment.

#### **REA Changeover**

With the rural electrification program near completion, emphasis is switching to farm telephone development.

Of all the New Deal's children and stepchildren, none was more disliked by businessmen than the Rural Electrification Administration. To the electric utilities, REA was a combination of socialistic experimentation and unfair competition. To business generally, it was the opening wedge for public ownership.

But REA has survived, one way or another, through all the attacks on it. And now that rural electrification is petering out, it is calmly switching over to a new field—farm telephone develop-

For REA, this means a major reorganization and a shift of personnel. But it also means an indefinite lease on life. Present plans call for the shift to be made around July 1.

• Out of a Job—Back in 1938, REA spokesmen conceded that they would eventually work themselves out of a job. The July 1 change indicates a step in that direction, but it doesn't mean that REA is going out of business. The agency will keep about the same number of employees it now has, but it will transfer a considerable number of them from electric power work to telephone loans.

At its peak in 1942, REA's electric loan program employed about 1,350 workers—about the same as for the fiscal years 1950 and 1951. Under the planned change, electric power loan personnel will be down to between 600 and 700.

• The New Ratio—Within the agency, the personnel shift will mean that the telephone program will be given equal standing with the electric loan program. Here is how REA will allocate its manpower after the change goes through:

Main reason for the change is that the bulk of the rural electrification work



## It's finger Asnap simple to figure

PERCENTAGE figuring of every kind is "run through" on the Friden fully-automatic Calculator with fewer operator decisions than on any other calculating machine. Per cent of increase or decrease is delivered by the Friden in a single operation, without separate subtraction or adjustment of the decimals in answers!

And this is only one example of Friden "figure thinking". Payroll and invoices . . . inventory and interest . . . figure problems of engineering and production-these and other computations are processed swiftly by the Friden. So automatically that no special operator training is required.

Any business becomes more efficient instantly when Friden takes over the figuring. Time-savings pay the cost of the machine!

## friden The Thinking Machine of American Business

A BIG POULTRY FIRM USES FRIDENS WRITES L. E. A. SWANSON, ASSISTANT TREASURER, C. A. SWANSON & SONS, POULTRY PROCESSORS OF OMAHA, NEBRASKA: "Friden Calculators enable us to quickly determine production costs with mininum use of employee time. We are using Fridens in our Inventory Control Department as well as in our Branch Accounting and Cost Accounting Departments. We find the simplicity of Friden operation a distinct advantage.

Figure on a Friden Call in the Friden Man near you and learn Friden applications to your business. Friden sales, instruction and service available throughout the U.S. and the world. FRIDEN CALCULATING MACHINE CO., INC., San Leandro, California.

OFriden Calculating Machine Co., Inc.



Conserve Manpower with Completely Mechanized Scrubbing

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines



States and Canada,

ature, phone or write near-

est Finnell Branch or Finnell

System, Inc., 3805 East Street,

Elkhart, Indiana. Branch Offices in all principal cities of the United

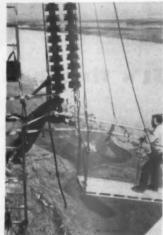
> PRINCIPAL CITIES

is nearing completion. Even REA administrator Claude Wickard admits that most of the backbone distribution lines have been built in rural areas where central station power is feasible. Expansion in this field will continue—but at a slower rate. REA already has cut its requests for loan authorization funds. But with the carryover funds, the total amount of money available for electric loans during the next fiscal year won't differ much from the present one.

From now on, REA will likely pay more attention to generation and transmission loans as distribution loan applications decrease. The REA power division, which handles G&T loans, will continue to function as at present.

• Changes—The principal organization change at REA will be the creation of

change at REA will be the creation or five electric distribution area offices to provide a single organization to work with distribution borrowers in developing plans and in providing technical assistance. All five will be located in Washington.



#### High Wire Act

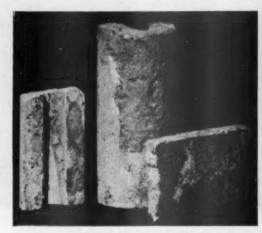
It's 400 ft. straight down to the bank of the Sacramento River as these linemen work on a new transmission line 40 mi. east of San Francisco. Safety belts are some consolation to the men, who've had to get used to working from swinging ladders and scaffolds.

The linemen are installing protective armor on a power cable, twisting bundles of rods around and around the conductor. Soon this line will be carrying 230,000 volts from Shasta and Keswick powerplants to distributing stations in the Central Valley of California. This line is part of the Shasta-Tracy west side transmission artery of the Central Valley project.

## **CAUGHT IN A FLOOD**



...Dug Out of the Mud, Kaylo Heat Insulation Proved Still Usable!



WATER SOAKED AND CAKED WITH MUD, these three pieces of Kaylo Heat Insulation were found partially buried in the Kansas City, Missouri, warehouse of Procter & Gamble after nearly two weeks of Missouri River flood water had receded. The unretouched photograph above shows the wet and mud covered pieces as they looked on arrival at the laboratories in Toledo, Ohio after shipment in a loosely-packed carton.

THE SAME THREE PIECES are shown in this unretouched photograph after they were cleaned by holding them under a water faucet and rubbing by hand, then dried with an electric fan. These pieces are still usable—proof of Kaylo Heat Insulation's resistance to water damage. Other Kaylo Heat Insulation, already installed at this plant, was under water during the flood, yet is still in place and performing efficiently.

Kaylo Heat Insulation is a hydrous calcium silicate — the heat-saving material that is revolutionizing insulation practice with its outstanding combination of advantages.



WRITE FOR FREE BOOK—"Kaylo Heat Insulation." Address: Dept. N-320, Owens-Illinois Glass Company, Kaylo Div., Toledo 1, Ohio.

KAYLO ... first in calcium silicate

... pioneered by OWENS ILLINOIS Glass Company

MAIN OFFICE: TOLEDO 1, OHIO -- KAYLO SALES OFFICES: ATLANTA - BOSTON -- CHICAGO -- CINCINNATI -- CLEVELAND -- DETROIT HOUSTON -- MINNEAPOLIS -- NEW YORK -- OKLAHOMA CITY -- PHILADELPHIA -- PITTSBURGH -- ST. LOUIS -- WASHINGTON

#### PROMOTION



NIGHT IN PARIS gets off to a royal start after high school prom when prom king and queen arrive der canopy into Allis-Chalmers plant. French theme . . .

#### After the Ball Is Over, Companies Shine



AMERICAN COKE is served by Kenneth W. Haagensen, Allis-Chalmers public relations direc-



tor, who is flanked by volunteers in French waiter get-up. At right, guests dig in as supper is served in wee small hours.



. . . is carried out in makeup of a Rotary Club member who serves as a waiter.

#### as Hosts

"Night in Paris" sounds like a long way from West Allis, Wis., and a factory doesn't seem to have much in common with a high school spring prom. Yet half a dozen companies in the Milwaukee area are combining these elements with happy effects on community relations.

Pictures show the "Night in Paris" post-prom party staged this month by Allis-Chalmers Mfg. Co., which is in its fifth year as a sponsor of these parties. Allis-Chalmers has three such parties scheduled this month for neighboring high schools, picking up the tab for more than \$3,500.

• Worry-Saver-Spread of the postprom party idea to half a dozen companies in the Milwaukee area means a lot to parents of teenagers—a lot less worry about their party-going children. The factory parties take up where the proms leave off; they give the youngsters a wholesome place to go when the band quits playing at midnight in the high school gym. They are deliberately



## \* PLUS Room to Grow!

A plant site at the heart of the greatest industrial center of the United States—where transportation facilities, labor supply, and living conditions are unexcelled—yet a site that offers room to grow and expand—this is the prospect for industries locating in Chicago and Northern Illinois,

This industrial "elbow room" is an important plus to look for these days. To find it in a location where industrial growth, measured in dollars, has exceeded that of any comparable area in the country is to find the ideal spot for the development or expansion of your business.

That is why, before you decide on any industrial location, you are urged to investigate Chicago and Northern Illinois. We'll make that easy for you.

A LETTER TO US... describing your requirements will bring you a careful analysis of this area's advantages as they apply to your business. Or if you wish, we will send you a carefully screened list of the available buildings or sites that would be suitable for your operations, based on the information you give us.

We keep all such inquiries confidential. Just write us.

Industries in the Chicago area have these outstanding advantages: Railroad Center of the United States • World Airport • Inland Waterways • Geographical Center of U. S. Population • Great Financial Center • The "Great Central Market" • Food Producing and Processing Center • Leader in Iron and Steel Manufacturing • Good Labor Relations Record • 3,062,000 Kilowatts of Power • Tremendous Coal Reserves • Good Government • Good Living • Good Services for Local Tax Dollars.

TERRITORIAL INFORMATION DEPARTMENT
Marquette Building — 140 South Dearborn Street, Chicago 3, Illinois

COMMONWEALTH EDISON COMPANY
PUBLIC SERVICE COMPANY OF MORTHERN ILLINOIS

#### I WAS GOING TO TELL BILL HE HAD LOST THE ORDER



When I walked into Bill's office to return his designs, I had just about decided to give the business to his competitor. While we talked I did some looking around. Pretty soon we were shaking hands on the contract . . . and I felt I'd been smart to give the job to his company.

Afterwards, I asked myself: what sold me? The facts and figures were right of course

-but the competition's quotations were right too. I believe what really clinched the deal was the atmosphere of Bill's office—the air of competence and efficiency. It looked well organized-like a place where a job would be done well.

'Y and E" equipment is both attractive and efficient. It helps you sell yourself . . . get the order . . . and get things done.

'Y and E" offices are designed for success.



1006 JAY STREET . ROCHESTER 3, N.Y., U.S. A.











#### 6 GREAT ENGINES designed and built for industrial use

Ford Industrial Engines are now affered in six series: One 4-cylinder, two 6-cylinder and six series: One 4-cylinder, two 6-cylinder and three V-8 cylinder, renging from 120 to 317 cu. in. displacement. All are available as complete power units or as individual engine assemblies. For complete information on these engines and also the new Ford MULTA-TORQUE Converter, write today to—

## are readily available for

#### INDUSTRIAL ENGINES AND POWER UNITS

• Nothing is more irritating to the owner and operator of powered equip-ment than "downtime" lost in awaiting delivery of replacement parts from some distant point; or locating a good mechanic who knows all about the engine when service is needed.

Equipment builders who specify Ford Industrial Engines for their products automatically overcome these problems . . . because Genuine Ford Parts and Service are "right around

Yes . . . Ford Dealers are located almost everywhere. There are more than 6,400 of them PLUS countless independent shops that also carry Genuine Ford Parts. This fact is well worth considering both in designing and purchasing powered equipment.

INDUSTRIAL ENGINE DEPARTMENT

FORD MOTOR COMPANY 15050 Woodward Ave., Highland Park 3, Mich.

YOUR JOB IS WELL-POWERED WHEN IT'S FORD-POWERED

prolonged till 4 a.m., when the taverns have closed. This also insures that the guests are weary enough to go straight home instead of joy riding.

Sponsoring companies recognize two problems: (1) how to get teenagers to come to their parties instead of to roadhouses after their proms, and (2) how to keep them there. The answer is to give the guests lots of loot-prizes, favors-and lively music and entertainment that they can't get elsewhere. Allis-Chalmers last year pepped up its 'Night in Hawaii" party with fresh leis flown from Honolulu, enough for every guest. Companies keep the party rolling to the very end by saving up big door-prize awards for the finale. Few guests drift away before the 4 a.m. closing.

· Helpers-The companies collaborate with service clubs, such as Rotary and the Lions, in giving the parties, and the clubs pay part of the expenses. Lions and Rotarians, as well as company employees, pitch in as waiters and as chauffeurs for the youngsters who don't have cars. Companies provide refreshments and buffet suppers from their kitchens at cost and usually foot the bills for orchestras, floor shows, decorations, and prizes.

The high schoolers love it. More than 90% of those who are invited come to the parties.

· Gaining Ground-Bucyrus-Erie Co., largest industry in the one-high-school city of South Milwaukee, inaugurated the program six years ago in collabora-tion with local Lions. Allis-Chalmers came in two years later, then pushed the idea to more lavish lengths than others before or since. More recently, the list of sponsors has been enlarged by Chain Belt Co., Allen-Bradley Co., Falk Corp., General Electric X-Ray Corp., and others.

· Dividends-Aside from improving community relations in general, two specific reasons are cited by Allis-Chalmers for its post-prom parties:

· Nearly 40% of the attending students have one or more parents who work for Allis-Chalmers, Wisconsin's largest industrial company.

· Allis-Chalmers is constantly combing high school ranks for labor and wants to make a favorable impression on potential employees.

· Spreading the Word-Allis-Chalmers takes colored movies of each party and presents the film to each graduating class. Copies of Allis-Chalmers films are shown by the company's public relations speakers in other cities where there's interest in adopting the postprom party idea.

Allis-Chalmers also lends its "theme" settings and equipment to companies in Watertown, West Bend, and other southern Wisconsin cities where the movement is gaining strength.

PRODUCT

COLD DRAWN
SEAMLESS
STEEL TUBING

USES

MECHANICAL, PRESSURE,
AIRCRAFT and
DIESEL TUBING

RANGE

SIZES up to 11/2" OUTSIDE DIA.

Specify SUMMERILL, and be sure!

For a great many years, specifying "Summerill" on orders for cold drawn seamless steel tubing has been a very sure way of getting completely dependable quality. It's more true today than ever, because we have the modern facilities and control equipment of a new plant to reinforce our traditional standards. • Let us supply you with footage produced to meet your demand for high quality tubing. Mechanical and aircraft tubing size ranges can be supplied on earlier deliveries than our other product lines.



Summerill

TUBING COMPANY DIVISION COLUMBIA STEEL & SHAFTING COMPANY Pittaburgh 30, Pennsylvania

Wa0 4104

SPECIALIZING IN COLD DRAWN SEAMLESS STEEL TUBING



#### "Why don't you talk to the people at Chase?"

#### "Chase's Foreign Department handles hundreds of export problems just like yours every year."

"I recently faced a problem like yours, John, and Chase National Bank cleared it up for me promptly.

"Like you I had never operated in a foreign market, and I needed advice from a sound, well-informed source. My local bank directed me to Chase, and their people have really done a job for me.

"Chase's Foreign Department is staffed with men who are specialists in every phase of foreign trade. They are familiar with the most recent trends abroad-and have contacts all over the world. In fact, the Foreign Department has specially trained groups who closely follow business conditions in each of the world's major trading areas.

"What's more, when you work with the people at Chase, their specialists in every Chase Banking De-

(Advertisement)

partment are at your disposal seeking to improve every phase of your operation . . . contributing ideas that may save you time and money.

"With such complete service, and with such large resources and wealth of experience, Chase and its Foreign Department are the perfect answer for every type of business with a financial problem abroad.

"All in all, I certainly found that 'IT PAYS TO DO BUSINESS WITH CHASE.' Why don't you talk to the people at Chase?"



The fellowing day I did talk to Chase

I outlined my problem briefly. Our company has manufactured heavy machinery for the American market for many years. One day, we received an unsolicited request for equipment from a South American firm.

We didn't want to turn down the business but needed detailed information on how to proceed. The people at Chase were most helpful. Their first move was to obtain up-to-date credit information on the South American firm in question. Having established its standing, Chase outlined the latest exchange regulations and helped us in every way to a successful conclusion of this piece of business.

Encouraged by this experience, we conferred with Chase as to the possibilities of further business in South America. Chase then provided us with a general analysis of business conditions there as well as outlining possible problems we might run into.

As a result of Chase's friendly, expert advice, our company is now doing a thriving export business not only in South America but in other parts of the world. We have certainly found just how much "IT PAYS TO DO BUSINESS WITH CHASE."

Chase has men trained and experienced to handle the financial problems of every industry. Why not write, call or come in.

It pays to do business with Chase

CHASE

NATIONAL BANK
OF THE CITY OF NEW YORK
[MEMBER FEDERAL DEPOSIT INSURANCE CORP.]



500 SCHOOLKIDS, turned loose for a day, planted more than 30,000 Douglas fir seedlings as part of the drive to reforest Oregon's oft-fireswept Tillamook barn.



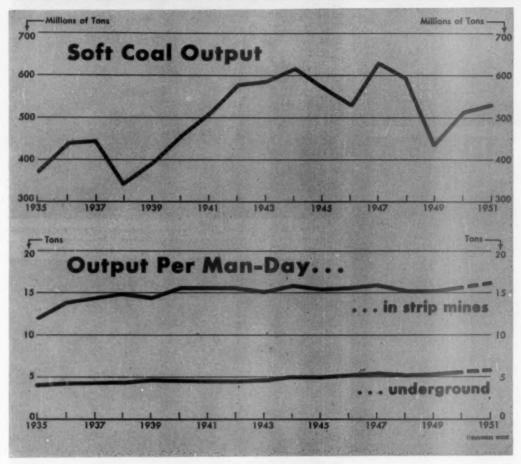
LOGGING COMPANIES operating in the burn gladly underwrote cost of the seedlings and a picnic lunch for the seventh and eighth grade foresters. Drive helped bring . . .

#### New Life for a Burned-Out Forest

Since 1933, three major, overlapping forest fires have laid waste 311,000 acres of prime timber in Oregon's Tillamook burn. In recent years, state foresters have teamed up with private logging companies to do something about it.

Heavy demand since the war, which has lowered standards on acceptable lumber, has made it possible to salvage over 8-billion ft. of lumber, with at least 4-billion ft. still to go. Cleaning up the snags also makes the area safer for future forests. The loggers, mixing profits with civic consciousness, are helping to reforest the burn as well as to clean it up. Just one stunt: the mass planting of seedlings by school children in a 40-acre plot. One way or another, an estimated 28% of the burn has already been restocked.

#### INDUSTRY



#### Coal: Soft Market, Hard Bargaining?

The coal industry this week is waiting for its annual visit from John L. Lewis. The burly president of the United Mine Workers is late this year, well beyond the usual danger date of Apr. 1. The operators know the reason: Lewis is waiting for a settlement in steel so he'll have a starting point for his own demands.

• Less Anxiety—Actually, the coal operators are awaiting the visit this year with less anxiety than usual. They feel that they stand in a better bargaining position now than they have in recent years—and they hope John L. Lewis knows it, too.

There are two reasons for this hopefulness. First, a skittish market and unstable prices have cut into profits deeply enough to make even Lewis think twice about forcing a major cost increase on the industry. Second, the operators figure that coal stocks on hand are great enough to discourage a strike. Above-ground stocks now stand at 75-million tons, at least; some operators say that another 15-million tons are out of the mines and hidden. That means the nation could get through at least 45 days of strike without worry.

• Falling Prices—Mostly, however, the operators will rely on the economic factors of their industry. They can point to the fact that all types of coal have been selling well below ceiling prices. There has been a steady average.

age drop in price at the mine from \$4.99 a ton in 1948 to an estimated \$4.60 today.

During the course of this price drop, the operators have given four big wage boosts. Their contribution to the welfare fund, at the same time, has gone from 5¢ to 30¢ a ton. Working hours have dropped from nine to eight. (Actual working time is down to 6.5 hours, because the total includes portal-to-portal, paid lunch time, etc.) Finally, bituminous production is running at about 3% below last year's rate right now.

• Cuff Links Only?—But the coal industry has lost enough battles with Lewis to know better than to expect



FAR-SIGHTED executives in many industries are now making Pitts-burgh COLOR DYNAMICS an important part of their operations as they are becoming increasingly aware of the fact that eye fatigue often slows down production even more than physical fatigue.

- When material the operator is working on is too similar in color to that of his machine, his eyes grow weary, just as the muscles of an arm tire when they are kept tensed for long periods. Needless eye effort is required to differentiate between machine and materials.
- Eye futigue often leads to headaches and other ailments. Absenteeism and accidents are likely to increase. Production efficiency and morale may

be adversely affected. One objective of COLOR DYNAMICS is to reduce the causes of eye fatigue.

- When you paint the COLOR DYNAMICS way you use eye-rest colors for surfaces the operator sees when he glances up from his work. Their chief purpose is to give him a few moments of eye relaxation.
- An excellent example of eye-rest colors used according to the principles of COLOR DYNAMICS is the Jackson, Mich. plant of The Goodyear Tire and Rubber Company in which tires and tubes are manufactured for use as original equipment of new automobiles.
- Here is the comment of E. T. Ruffner, Plant Manager, on his ex-

perience with eye-rest colors: "Three years ago we painted our plant according to COLOR DYNAMICS. Our aim was to lessen eye fatigue among our workers. So completely satisfied are we with the results that we plan to repaint the same way in the near future."

- COLOR DYNAMICS has proved similarly successful in hundreds of other important industrial plants and commercial structures. It has earned this acceptance because it improves production efficiency.
- Why not test the practical value of this modern painting method in your plant? Use it on a machine or two, or in a completed department, and see the difference it makes in your output.

COLOR DYNAMICS Engineering Study of Your Plant-FREE!

◆ For a complete analysis of the service COLOR DYNAMICS can perform for you, send for our free, profusely illustrated booklet. It explains simply and clearly how to put color to work on machines, walls, floors, ceilings and mobile equipment. Better still, let us show you exactly how to apply it in your plant. We'll be glad to submit a color engineering study of your entire factory, or any part of it, without cost or obligation. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have our COLOR DYNAMICS representative see you at your convenience. Or mail this coupon.

SEND FOR A COPY OF THIS BOOK

Pittsburgh Plate Glass Co., Palet Biv.
Department BW-52, Pittsburgh 22, Pa.

Please send me a FREE copy of your Booklet "Color Dynamics."

Please have your representative call for a Color Dynamics Survey without obligation on our part.

Numa.

Bross.

City. Chantle Glass Co., Pittsburgh Plate Glass Co., Pittsburgh.



## PITTSBURGH PAINTS

TITEBURGH PLATE GLASS COMPAN

# One Reason Why Can Afford



Allis-Chalmers Makes Machinery to Enjoy More Leisure



ALLIS-CH

GENERAL MACHINERY DIVISION

# So Many People Automobiles\_

## THE ELECTRIC MOTOR

This is an Allis-Chalmers 5-hp alternating current electric motor. Hundreds like it, in a wide range of horsepowers, help build your car—through providing low-cost, efficient power in practically every step of manufacturing.

Even the raw materials—metals, glass, textiles, rubber—are processed better, faster, and at less expense on machines driven by electric motors.

In the factories where parts are made for assembly into complete machines, jobs are easier, safer, and more productive with electric motors to power the presses, gear cutters, and stamping machines.

Finally, the assembly lines themselves are electric-motor-powered—assembly lines on which the automobile industry can complete as many as 53 new cars a minute.

Allis-Chalmers builds rugged, dependable electric motors for a wide range of power needs. It also builds turbines, generators, switchgear and control that deliver electricity to industrial centers and to your home.

Help People Produce More\_ Have More\_ Time \_\_\_ LIVE BETTER!

ALMERS



PLANTS IN: MILWAUKEE, WIS .- PITTS BURGH, PA .- NORWOOD, ONIO-BOSTON, MASS .- TERRE HAUTE, IND .- MONTREAL, P. Q .- ST. THOMAS, ONT.



Here's a trade-mark to remember. It's a hit with men who buy and produce printing. It represents the diversified and standard Mead brands of popular printing papers for every business and advertising use.

Mead Papers, including D&C coated papers and Wheelwright bristols and covers, score high with advertisers, printers, and lithographers the country over. Specify these papers, covers, and bristols.

Prove that they can score equally high with you.

Your printer or lithographer—and, backing him up, America's leading paper merchants—knows Mead Papers. He will advise you which brand to use or specify for any printing purpose, however simple or elaborate, small or big, your purpose or your purse may be.

Mead Papers mean business. Specify and use them for every job, every time.

#### THE MEAD CORPORATION "PAPER MAKERS TO AMERICA"

Sales Offices: The Mead Sales Co., 118 W. First St., Dayton 2 · New York · Chicago · Boston · Philadelphia · Atlanta
ESTABLISHED 1846

T.M. Reg. U.S. Pat. Off.



Business letterheads and billheads, printed, lithographed, orengraved on Mead Papers, roll easily and smoothly through millions of typewriters every working day.



Colorful accordion folders miniature catalogs, in effect are used by many manufacturers to bolster sales. MEAD PAPERS are ideal for such in-the-home selling.



Elaborate programs are a money-raising device for many affairs staged to support local charities . . . and many are printed on coated MEAD PAPERS.



Millions of seed catalogs, printed or lithographed on MEAD PAPERS, sell bushels of seeds and bulbs, and help to make May colorful for many an amateur gardener. "... each producing property must stand on its own feet, and the strong can't carry the weak . . ."

COAL starts on p. 96

any sympathy from him. As one spokesman said last week: "Lewis is never easy. The best the operators can hope for is that instead of asking for the shirts off their backs, he will only ask for their gold cuff links and Countess Mara ties."

What Lewis will demand specifically is anybody's guess. But it seems almost certain that he will want the same wage increase that Philip Murray gets for his steelworkers. It looks as if he will demand another 10¢ per ton for his welfare fund. He may try to get more and better safety rules.

• Outlook—Actually, Lewis knows that the industry isn't so badly off as it appears, despite the fact that both demand and price are down. For one thing, even though at the moment demand is down from last year, you can't call it really bad. On the books, the second quarter of this year looks grim. But the trade is optimistic about the year as a whole. Some estimates even go so far as to say that output this year may actually go as much as 5% over last year's.

The optimists point to the fact that the second quarter is always likely to be bad in coal demand, and is therefore a deceptive guide to the year as a whole. The third quarter should show the real trend. More cautious experts think that, even so, the trend will continue to be down.

• Depletion Allowance—Most operators, however, can count on a nice break, profitwise. That's due to the doubling of their tax "depletion allowance" from 5% to 10%, under the 1951 Revenue Act. What this means is that operators may deduct 10% of their gross income before figuring their taxes, instead of 5% as before.

But there's a catch in this: In order to get a full 10%, a mining company has to be roaring on all properties at a good speed. The reason is that the chargeoff applies only to individual mines; and it cannot exceed 50% of the net profit at that mine. That means that each producing property must stand on its own feet, and the strong property can't carry the weak property.

• Harder to Get—On top of that, it's a lot harder to make the 10% than it was to get 5%—especially since prices are so unsteady. Say, for example, that you're selling coal at the mine mouth for \$4.20 a ton. If you can make 84¢ profit on that ton of coal, you are en-



## Governor Byrnes Reports On South Carolina's Progress

The Honorable James F. Byrnes states: "In entering office as the Governor of South Carolina, I pledged to encourage and support the continued industrial progress of my State. The people of South Carolina and their elected legislators have cooperated with me heartily, as evidenced by these facts:

"(1) South Carolina has solved the school equalization problem by devoting the fully adequate proceeds of

a 3% retail sales tax to a new school building and transportation program. This and other problems have been squarely met, and solved without interfering with our present favorable tax structure.

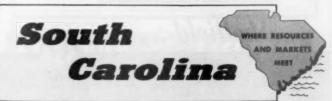
"(2) Since January 1951, 75 new and existing industries have announced the investment of \$141,600,000 in South Carolina, providing new jobs, higher incomes and more purchasing power."

LOCATE YOUR PLANT WITH THESE EIGHT ADVANTAGES: Happier, more productive workers
Cooperative State and Local Government
Nearness to markets
Gentle climate
Wealth of natural resources
Abundance of water and power
Splendid transportation (land, see, air)
Low construction and site costs

Write Now for FREE Folder Describing South Carolina's Industrial Advantages

L. W. Bishop, Director — Research, Planning and Development Board

Dept. BW 5, Columbia, South Carolina



# HERE'S HELP!

to get
MORE PRODUCTION
at
LOWER COST
with your
PRESENT MANPOWER

#### PRECISION INSPECTION EQUIPMENT

Quality control gages

Indicating comparators

Production and toolroom measuring

Multiple dimension production gages

Automatic gaging, classifying, and segregating machines

Standard precision gages

Special gaging equipment

X-Ray continuous measurement gages

#### MORE PRODUCTIVE MACHINE TOOLS

Gear burring, burnishing and chamfering machines

Micro-Form grinders

Crushtrue grinding equipment

Thread and form grinders

Threading machines

Automatic welders

Special machine tools

#### TIME-SAVING THREADING TOOLS

Solid tops

Self-opening dieheads

Collapsible taps

Thread chasers

#### CONTRACT SERVICES

Engineering and design

Dies of all sizes

Tooling

Contract manufacturing

Forms, threads, precision parts

Special production machines

Call, wire or write for a qualified Sheffield engineer to help select equipment which best meets your expanded requirements. Address CUSTOMER CONSULTATION SERVICE.

the Sheffield corporation

Dayton 1, Ohio, U. S. A.

GAGES . MEASURING INSTRUMENTS . MACHINE TOOLS CONTRACT SERVICES . THREADING TOOLS titled to an allowance of 42¢. But the chances of getting an 84¢ profit margin are slim.

If that's true with a coal selling for that price, consider the plight of the operator who's selling a grade of coal that's priced at \$7.50 a ton. When demand falls, buyers tend to go to cheaper coal. That puts pressure on the seller's price and costs—and hits his profits, and at the same time reduces the dollar amount of his percentage depletion allowance.

Still, the extra allowance will make a lot of difference to individual companies. The chances are that it will give the really solid companies a chance to show better profits even in a soft

market.

• Softness Cause—Why is the market soft? There are lots of answers. One is that coal directly reflects the state of industry generally—and business generally has faltered this year. Another is that there is excess capacity. Total capacity now runs perhaps as much as 650-million tons a year. An output of 550-million tons a year is high. The excess is due largely to the fact that a lot of small producers entered the coal business through the war and lush postwar years through 1948. They have hung on because business has been good.

This excess capacity doesn't necessarily take business away from the big, solid, old-time producers. But it does tend to unstabilize the market, encourage shopping around by buyers. That brings on price competition earlier than it would show up otherwise.

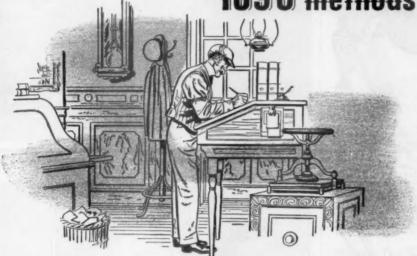
than it would show up otherwise.

• Mechanization—One thing that has helped operators in recent years has been considerable cost cutting through mechanization, particularly in the larger and better established companies. They can't get much more savings out of it, however, until some wholly new approach to mechanization comes along—perhaps a more universal use of the continuous miner. The guess is that that is still five years away.

Costwise, the operator who is really well off is the strip miner, because he can carry mechanization to a greater degree than in underground mining. But probably the biggest saving is the fact that you can just plain get more coal per day out of a strip mine: Last year, for example, production per mandav in strip mines ran at 16.19 tons, while underground it was only 5.95 tons (chart, page 96). So from labor right through mechanization, a strip-mine operator's costs run considerably below those of the deep-mine operator.

 No Slump Due—But all in all, the coal industry hardly seems to be in for a slump. And that's something you can be sure John L. Lewis will keep in mind when he pays his call on the industry within the next few weeks.

# Imagine doing business with 1890 methods!



The bookkeeper with his eye shade and sleeve garters, at a high top desk, typified the tempo of business in the Gay 90's. His was a tedsous and exacting job. Motorized equipment such as adding machines, calculators, bookkeeping machines, tabulating machines, postage meters, and letter openers, to name a few, were still in the future.

During this period Emerson-Electric was founded. Since then motors have been supplied to scores of leading manufacturers of labor-saving devices. They staked the reputation of their products on Emerson-Electric motors, and with the passing years became nationally known for dependable service.

Consider this 62-year-old reputation for dependability and efficiency, earned by Emerson-Electric motors for use in business, on the farm, in the home and in industry. Your inquiry is invited on the complete line of standard motors in horsepower ratings from 1/20 to 5, and hermetic motor parts 1/8 to 10 H.P.

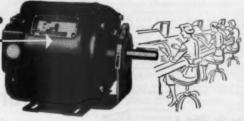
## MODERN BUSINESS IS POWERED WITH ELECTRIC MOTORS



Manufacturers requiring motors 1/20 to 5 h.p. can profitably use these reference guides. Specifications, construction and performance data are included for these motors:

T57-A Capacitor-Start
T57-B Split-Phase
T57-C Integral

Start | T57-E Oil-Burn | T57-F Jet-Pum| | T57-G Blower



EMERSON ENTERIOR ELECTRIC

The Emerson Electric Mfg. Co. . St. Louis 21, Mo.

LEADERS IN THE FAN AND MOTOR INDUSTRY SINCE 1890



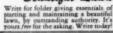
"Yes, you'll have a neater, more beautiful lawn with an ECLIPSE Power Lawn Mower to handle the grass-cutting job for you. No more hot tedious hours of pushing that old hand lawn mower. What used to be a chore becomes a casual matter of "lawn maintenance", with an ECLIPSE Power Lawn Mower. It's easy to keep the grass trimmed just right, at proper intervals - and have that luxuriant growth of lawn all the neighborhood will envy!

\*We suggest placing your order early because de-liveries sometimes must be set back to rush through important defense work. Author-ized Parts and Service Distribu-tors in most Metropolitan Areas.



A precision-built power mower at moderate price. Has all the outstanding features of larger ECLIPSE mowers including quiet, dependable 4-cycle engine, patented natural-grip handles, and special finger-tip control. Typical example of the value you get with ECLIPSE based on over 50 years' specialized manufacturing experience. Five sharp durable blades
 Oil rempered lower knife
 Parented floating natural-grip all-steel handles
 Positive action clutch
 Beautiful "all-weather" finish

- Power driven wheels
   Power driven heavy
  duty reel
   Power driven sharpener
   Finger-rip controls
- Finger-tip controls
  Dependable 4-cycle • Timken bearings in reel • Diamond roller chain
- drive Goodyear puncture
- How to have a Beautiful Lawn

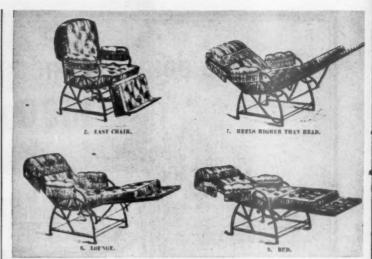




finish

50 years' experience
devoted solely to the
design, engineering a
production of quality

A COMPLETE LINE OF HAND AND POWER MODELS



1870 MODELS of the mechanical chair were surprisingly like the modern version, although it took a series of catches, pivots, and braces to manipulate them.



THE KANGAROO of the 1830's had the form of "an ocean wave inviting the body to nestle in its curve." It was one of the ancestors of form-fitting furniture.

#### Mechanical Chair Returns

A few hundred centuries ago, a caveman clubbed and dragged home the day's provisions. He was tired from the day's work; so, while the little woman was wrestling with the kill, he sat down, leaning against a rock. Pretty soon he stretched his legs up over an opposite

Ever since, man has had a tendency to stretch out with his feet up, to get a quick pickup. For years polite society tried to discourage the habit, but by the early 19th century medical science was giving the sprawlers some encouragement. And early Victorian inventors were figuring out ingenious ways to build furniture that would make sprawling easy.

Furniture manufacturers made the most of the opportunity, and adjustable



1952 BARCALOUNGER is streamlined and dispenses with knobs and levers, but it works on the same principles and gives much the same effects.



1952 CONTOUR CHAIR-LOUNGE took up where the Kangaroo left off. It comes in six different sizes, will accommodate any height up to 6 ft. 8 in.

#### to the Parlor-Streamlined

chairs, adapted to the contours of the body, began to join the horsehair sofa in the parlor.

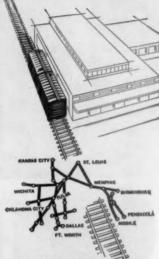
When tastes changed, toward the end of the century, the mechanical chair moved up to the attic, along with the brass bedstead. It stayed thereuntil a few years ago.

After World War II the medical profession endorsed the Age of Hyper-

tension, Nerves, and Neuroses. "Relax," was the prescription. The furniture makers once again saw their chance. Almost overnight, the formfitting chair reappeared. By the end of 1951 it had reshaped itself into a \$40-million industry.

• Forerunners—The early part of the 19th century saw the evolution of the adjustable invalid chair and the barber-

# Build it on the FRISCO



#### Where You'll build NEW BUSINESS!

ST. LOUIS SUBURB-(Valley Park, Mo.)

109-Acre plant site on FRISCO Main Tracks. Zoned for light industry ample water and power at site nearby natural gas source—county bus transportation—ideal labor situation.

Executives considering plant location will find this choice site—close to the St. Louis market of 1,500,000 people—well worth investigating.

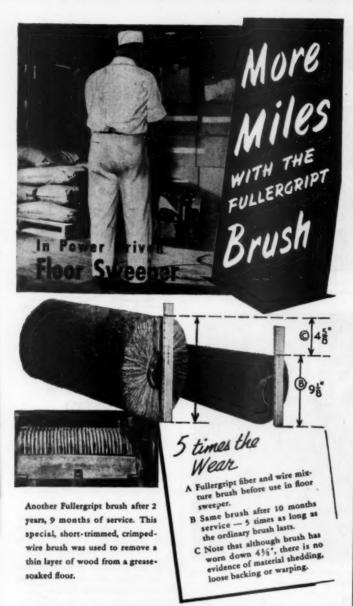
If your operations produce rail carload traffic, we will welcome your inquiry. Write today to:

J. E. GILLILAND,
Assistant to President-Development
Frisco Rollway
215 Frisco Building, St. Lavia 1, Ma



5,000 MILES SERVING

Missouri Oklahoma Kansas Texas



Users of power-driven floor sweepers consistently emphasize the longer brush life, the improved sweeping efficiency and the saving of man-hours with Fullergript brushes! Write us for information.



surgical chair, as well as special types of mechanized furniture for the home. By the late '80s, reclining chairs were being turned out on a mass-production basis. Sales of the Wilson Adjustable Chair Co. ran into the tens of thousands of chairs. Another manufacturer. whose chair combined in one "a parlor, library, smoking and reclining chair, a lounge, or a full-size bed adjustable to any position," boasted that more than 80,000 were in use.

· Comfort Plus Health-Today's reclining chair industry makes its sales pitch in terms of both comfort and health. All the chairs on the market claim increased comfort. Most promise relief to sufferers from heart, circulatory, or lung ailments, hypertension, asthma-even stomach disorders.

In general, they all follow the principle that bodily relaxation is found in a supine position with the feet raised; bones, muscles, and nerves are supported by distributing pressure and tension.

· Wide Selection-Already, there are about a dozen manufacturer's vying for the comfort-health trade. One of the reclining chairs that claims the medical and scientific backing is the Barca-Lounger (picture, page 105), which was marketed in 1945. It was developed by the Barcalo Mfg. Co., of Buffalo, N. Y., in collaboration with Dr. Anton Lorenz, who began studying the subject in Germany in 1932.

The chair provides automatic adjustment to any position. There are no knobs or levers; the desired position is attained by pressure and weight

shifting.

Barcalo, which also makes upholstered furniture, opened a new factory in 1951 to take care of the increasing demand for the chairs. Last year Barcalo chalked up a sales record of over \$3-million. It now turns out between 175 and 200 BarcaLoungers daily.

. Luxury Trade-According to Lewis & Conger, New York home furnishing company and enthusiastic booster of the chair, customers divide pretty evenly between those wanting it for health reasons-whether recommended by a doctor or by self-prescription-and those who are looking for comfort.

Lewis & Conger is directing its sales campaign to executives, and is trying to introduce the siesta habit into the office. One customer, according to L&C, was so badly bitten by the relaxation bug that he installed his Barca-Lounger right at his desk. Since the chair ranges in cost from about \$135 to \$325, siestas will be limited to top brass, for some time, at least. Underlings will have to be content to put their feet on the desk.

· Hollywood Pattern-The Contour Chair-Lounge (picture, page 105) is another adjustable reclining chair that has hitched itself to medical coattails. It's made by Marie Designer, Inc., of Hollywood. The concern was started in 1946, when Victor La Doux, searching for a chair that he could relax in unaware of his war injuries, found what he wanted mouldering in a St. Louis warehouse. Maker Joseph Laskowitz had given up on it. La Doux signed the contract for sole distribution rights and, with his wife, Marie, opened the first Contour Chair Shop in Hollywood in 1947.

By the beginning of this year, Contour had 54 franchised dealers throughout the country. Contour Shops follow the Hollywood pattern-in style and method. When you enter their lush showroom, a salesgirl looks you over for size, then leads you to one of six size possibilities ranging from the Petite (if you're 5 ft. 2 in. or under), to the Super Senior, which will cradle anybody up to 6 ft. 8 in. It ranges in price from

\$135 to \$255.

· Pressure Controlled-Another chair, the Kenmar Contour Reclining Chair, moves automatically by pressure of the body against back and arms. It's made by the Kenmar Mfg. Co. factories in East Palestine, Ohio, and Ottumwa, Iowa. Its three models have a price range of \$99.50 to \$129.50.

Other models in the field include: . The La-Z-Bov Reclining Chair, made by La-Z-Boy Chair Co., Monroe, Mich., comes in 10 models, priced be-

tween \$131 and \$229.

· The Berk-Lock three-in-one chair and leisure lounge is manufactured by the Berkline Corp. of Morristown, Tenn. It's in the low-price range-under \$100. This chair has a hand lever that locks the position of the chair at any angle desired.

. The King-of-Ease reclining chair, made by Kittinger Co., Inc., of Buffalo, N. Y., usually has a matching ottoman. It comes in 10 models, priced from

\$170 to \$300.

· Selrite, Inc., of New York makes many styles of reclining chairs, including models for outdoor use. Highest-priced

chair is about \$70.

• Relaxation in the Sun-In addition to these indoor models, there are many reclining affairs for outdoor use. Among the least expensive is the Barwa. It is canvas, terry cloth, or Lumite upholstery slung on aluminum or steel tubing that forms a resilient spring understructure. It was invented by two young Chicagoans, Edgar Bartolucci and Jack Waldheim, back in 1944. Later, the partners sold the manufacturing rights to Ralph Elliott Co., furniture manufacturer, of Los Angeles.

The least-expensive canvas-upholstered model sells for about \$32.95, the de luxe models \$44.95 up. One of the biggest sales fields for this model is in hospitals, because the upholstery can

be removed and washed.



### "I shall never surrende



"... I am determined to sustain myself as long as possible and die like a soldier who never forgets what is due his own honor and that of his country. VICTORY OR DEATH.

Among the most heroic documents of American history are the letters written by William Travis from the Alamo requesting aid. Stirring words from strong men-Bowie, Crockett, Travis. Though their dauntless group totaled only 145 men they held against a Mexican force estimated at 6,000.

Aid was not to be forthcoming and when the wall was finally breached the end came quickly though the gallant Texans gave their lives to the last man. "Thermopylae had her messenger of defeat - the Alamo had none.

The well-turned phrase is not considered essential in modern business correspondence . . . clarity, brevity, accuracy and, of course, good appearance are of greater importance. Gilbert Quality Papers make it easy to achieve good appearance. The new cotton fibre content of these papers together with the separate tub-size, air-dry operation makes possible neat erasures and provides the crisp feel and sparkling cockle finish that presents your message with authority.

Your printer, lithographer, or engraver will be pleased to show you samples.





BOND . ONIONSKIN . LEDGER INDEX BRISTOL . MANUSCRIPT COVER . VELLUM . SAFETY REPRODUCTION . BANKNOTE PAPERS

A good letter is always better-written on a Gilbert Bond

### Harmon Elliott Talking

About thirty-five years ago Stanley Burroughs and I played a nine-hole golf course at Bass River on Cape Cod, Massachusetts.

Our two caddies were ten year old Cape Cod fishermen's sons, and after the game they said we owed them each \$1.25 for their nine holes' work.

We told them that caddies around Boston got only 85 cents for eighteen holes, and we told them they would probably grow up and become pirates, but we paid them \$1.25 each.

They left us at our automobile, but when they were about fifty feet away, one of them shouted back to us, "Gee whiz, Misters, you look old enough to know enough to make your bargains in advance."

That ten year old caddie's advice has saved me many thousands of dollars, and our rule that our Purchasing Agent must get two or more competitive bids on all orders exceeding \$1,000 has saved us hundreds of thousands of dollars.

And Elliott competition has saved the buyers of addressing machines and address plates many millions of dollars.

If you are "old enough to know" that competition is your only business friend and if you are still using metal address plates, you should let us send you our latest booklet entitled "Stencil Addressing from 1852 to 1952."

H.G. Ellioth

151-P Albany Street Cambridge 39, Mass.

# MANAGEMENT

### **Rockwell's Growth Formula: Diversify**

... Your Locations ... Your Products ...

DIVISION OR SUBSIDIARY	(DATE ACQUIRE	01	NO. OF WORKER:	5
PITTSBURGH EQUITABLE METER DIVISION	(1927)	PITTSBURGH, PA.	925	GAS METERS AND REGULATORS GASOLINE AND OIL METERS LUBRICATED PLUG VALVES
HOPEWELL DIVISION	(1929)	HOPEWELL, N. J.	250	SERVICE COCKS, GREASE METERS, METER REGISTERS MACHINED PARTS
NORDSTROM VALVE	(1932)	OAKLAND, CAL.	800	LUBRICATED PLUG VALVES
NATIONAL METER DIVISION	(1941)	BROOKLYN, N. Y.	600	WATER METERS
EDWARD VALVES, INC.	(1945)	EAST CHICAGO, IND.	500	CAST AND FORGED STEEL VALVES
HYDRAULICS DIVISION	(1946)	PITTSBURGH, PA.	10	HYDRAULC TRANSMISSIONS PUMPS
PITTSBURGH DUBOIS	(1947)	DuBOIS, PA.	775	GAS METERS
MACNICK DIVISION	(1947)	TULSA, OKLA.	150	PARKING METERS ORIFICE METERS CLOCK MECHANISMS
REGULATOR DIVISION	(1948)	HORWALK, OHIO	125	GAS REGULATORS
BARBERTON DIVISION	(1951)	BARBERTON, OHIO	700	FLUMBING FITTINGS GATE VALVES LUBRICATED PLUG VALVES
DELTA MANUFACTURING DIVISION	(1945)	MILWAUKEE, WIS.		WOOD AND METAL WORKING
CRESCENT MACHINE	(1945)	LEETONIA, OHIO		WOODWORKING MACHINES RADIAL ARM SAWS
TUPELO DIVISION	(1951)	TUPELO, MISS.	300	POWER TOOLS
ROCKWELL REGISTER CORPORATION	(1946)	BELLEFONTAINE, OHIO	260	CASH REGISTERS TAXIMETERS FARE REGISTERS
FREEPORT DIVISION	(1945)	PREEPORT, ILL.		ARMOR PLATE
ROCKWELL TOOLS, INC.	(1951)	COLUMBUS, OHIO		HAND SAWS CIRCULAR SAWS
DELUXE SAW &	(1952)	CHICAGO, ILL.		CIRCULAR SAWS

# How to Grow Through

When Willard F. Rockwell, Jr., president of Rockwell Mfg. Co., Pittsburgh, recently appointed an "ivory tower committee" of young executives, he told them: "I want you to sit down once a month and talk about new management ideas. And I want some constructive criticism of our own company to come out of these meetings."

Last month, after the second meeting, Rockwell and his two executive vice-presidents got a solid suggestion from the young men: "Let's make out a check list, a sort of formula, to use

when Rockwell buys another company."

• In the Groove—The idea couldn't have been more acceptable. It fits in neatly with Rockwell's history and long-range plans for future growth. In addition, it assures Rockwell's top brass that the younger executives are think-

ing in company terms: diversification.

If anybody can make a formula out of the elements of buying a new business, Rockwell can. Rockwell has had enough experience to fill a few manuals.

Expansion by Absorption—You get a

glimpse of that experience from the

BUT concentrate your distribution in homogeneous markets



ORS

15

PETROLEUM INDUSTRY
GAS UTILITIES
WATER UTILITIES
WUNICIPALITIES
ELECTRIC UTILITIES
LP GAS DISTRIBUTORS
APPLIANCE MANUFACTURERS
CHEMICAL PROCESS INDUSTRIES
MARINE INDUSTRY

WOOD WORKING SHOPS METAL FABRICATORS CONSTRUCTION INDUSTRY MAINTENANCE SHOPS SCHOOLS AND INSTITUTIONS LUMBER INDUSTRY CRAFTSMEN HOBBYISTS

COMMERCIAL ESTABLISHMENTS
PUBLIC TRANSPORTATION
ARMED FORCES

HARDWARE AND MILL-SUPPLY OUTLETS

# **Absorption**

table above. Ever since the company was reorganized in 1925 as the Equitable Meter & Manufacturing Co., with Col. Willard F. Rockwell, Sr., as its head, it has been adding new products to its line by acquiring other firms. The first was the Pittsburgh Meter Co., acquired in 1927 from Westinghouse Electric Corp. The latest was the Deluxe Saw & Tool Co., Chicago, early this year. In between are 13 acquisitions, plus some new Rockwell-built plants, that have been fitted into a central organization in Pittsburgh.

Rockwell took its present name in 1945, when it moved beyond a diversified valve and meter business into power tools. Today the company has 17 divisions or subsidiaries, employs about 6,000, and makes everything from handsaws and parking meters to precision measuring instruments. Its volume was close to \$100-million last year.

• Many Eggs, Many Baskets—Col. Rockwell is chairman of the board. (He also holds the same job with Timken-Detroit Axle Co. and Standard Steel Spring Co.) He decided to spread his product line after World War I, when an axle company he started in Wisconsin fell on hard times because the government dumped surplus trucks on the market. When he moved to Pittsburgh, he carried with him the conviction that no company should depend on one market.

There are two ways to steer clear of that rut. One is to develop your own new products. That takes time, lots of capital, and the big risk that the product won't pay off in the end, anyway.

The other way is to buy companies. From the start, that's been Rockwell's policy. As Rockwell, Jr., puts it: "We don't buy companies for bricks and mortar—we can build a better plant than any existing now. What we buy is products, markets, and management."

 Double Trouble—Diversification by taking over existing companies can be a risky business, too. A lot of companies have tried, and found out later it was a costly move.

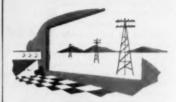
Rockwell feels pretty sure it makes as few mistakes as any. Over the years, management has developed some basic ideas on how to go about it. The problem really breaks down into two parts: (1) getting the right company in the first place and (2) integrating it into an over-all management organization with as few kinks as possible.

Rockwell has a distinct advantage over companies launching a new diversification program, as many did right after the war. It's been in the game so long, brokers and owners who want to sell often think of Rockwell first. Besides that, the whole organization keeps its eyes and ears open, well aware that management is open to almost any good deal. Then, too, Col. Rockwell usually comes back from trips with a basketful of new ideas and leads.

 Careful Selection—Mostly, companies are put on the market because of taxes, the age of the owners, lack of capital, or dissatisfaction of stockholders with present management. Negotiations often take as long as six months or a year, sometimes, the mere fact that Rockwell



# from Lighthouse Signals to Circuit Breaking



# Quincy

# DO IT BETTER...FASTER AT LOWER COST

Air Makes Things HUM! Whether it's supplying air for signal horns in lighthouses . . . or for operating circuit breakers to protect vital power lines, you can always depend on Quincy Compressors. These are two more of the hundreds of unique and everyday jobs performed by Quincy.

Quincy builds the most complete line of air compressors for service stations, garages or for use as part of products requiring compressed air supply. Sizes ranging from 1 to 90 c.f.m. Sold and serviced by a nationwide network of authorized automotive and industrial distributors.



### QUINCY COMPRESSOR CO.

Branch Offices: NEW YORK · PHILADELPHIA DETROIT · CRICAGO · ST. LOUIS · DALLAS

Quincy Manufactures Air Compressors Exclusively



# It's been a busy day!

Gosh... I've been going since early morn but the results were worth it. First, there was that furniture house. We figured how they could save money by routing a different way. Then—a building materials firm where we discussed their present lease and a possible new location. Following that came a call from a paper company who wanted help on getting an industry track built. Then a floor covering concern that had a packing and loading problem. Our container engineers are helping out on that.

Let's see—what else? Oh, yes, that new manufacturing firm that needed a line of rates for moving its products to consuming areas. Also a woolen mill in connection with L. C. L. service, and so on.

That gives you an idea as to how the varied experience of our freight representatives can be helpful to you. Call on your nearest U. P. freight man at any time. He's there to assist and advise you.

Be Specific - Ship "Union Pacific"

(Offices in 70 cities throughout the U.S.A.)

is interested will give owners such big ideas about the worth of their companies that the deal falls through.

Once substantial agreement is reached, Rockwell carefully checks a company's assets. Because of today's taxes, most sales are through a trade of stock. (Sellers take Rockwell stock, pay no taxes until they are ready to liquidate.) When Rockwell pays out its shares, it has to be certain that what it is getting won't water down the rest of its stock.

There's probably no time when Rock-well hasn't some kind of transaction on the fire. In 1947 the company looked at 207 firms. Of those, about 30 were seriously considered, got a closer check by Rockwell brass. In the end, two were bought: The Pittsburgh DuBois Co. (tin gas meters) and the Macnick Co. (parking meters, control instruments).

Qualifications—Like every other company Rockwell buys, they had to meet one major test: In some way, they had to fit into Rockwell's basic distribution setup. A company's product can appear a logical addition to the Rockwell line, yet throw the sales organization out of kilter.

For instance, when Rockwell broke into the power tool industry by buying Delta Mfg. Co., it got along with it a subsidiary making hydraulic presses. For about four years, management tried to fit that product into its organization. But heavy machines such as presses require a different distribution than Rockwell's smaller line of tools. The press division was sold, chiefly because it was taking as much of management's time fussing with that part of the business as it was to run the whole power tool division.

On the other hand, some companies seem unlikely to fit into Rockwell productwise. But if distribution channels are related, management will take a look. Right now it is considering seriously the purchase of a hardware company—which would dovetail with its new line of hand and circular saws, The handsaws themselves fit neatly into the dealer-distributor organization built around power tools.

Sometimes, though, a product can be out of Rockwell's sales field, yet be too good to let go. When that happens, the company will sell its entire output to another firm, let it take over the distribution. That is the case with Macnick Division's parking meters.

• Two Divisions—Once a company is purchased, the problem is fitting it into the central management organization. To do that, Rockwell has split itself into two major divisions—valves and meters, and power tools. The latter also oversees the register subsidiary. Each of the two main divisions is headed by an executive vice-president

and two vice-presidents, for sales and manufacturing. Key job of these two divisions is sales—each has a big sales staff.

Below that are operating division managers for each plant. They have as much autonomy as possible, handling every end of the business except sales.

• Operation—Operating managers are close to being small businessmen. Plants never go over 1,000 employees (the ideal, says Rockwell, is probably 500). Each manager is paid an incentive bonus based on his return on investment. That's a formula worked out by Rockwell a couple of years ago. It makes it possible for the operating manager to show good management regardless of what happens to sales, over which he has no control.

Since the war, any company that Rockwell bought has had to fit into either one or the other central sales organizations. The time may come, of course, when the company branches out into an entirely new field. When that happens, there'll have to be still a

third avenue of distribution.

• Eyes South—Where is Rockwell looking now? About all you can get out of management is a geographical direction: South. In 1951 it opened a new tool plant in Tupelo, Miss., which the town built and then leased to Rockwell. Right now the company is toying with the idea of buying a wood machinery firm. It doesn't fit any product line Rockwell now has, but its location interests the company: the South.

### MANAGEMENT BRIEFS

General Electric Co. is boosting its scholarship program by 60% this year. For the 1952-53 school year, it will pay out more than \$370,000, an increase of \$145,000 over the current program. The number of awards will be raised from 138 to approximately 285.

Schrafft's deskside coffee service for office workers (BW-Jun.2'51,p54) started two years ago at Mutual Life Insurance Co. in New York, now provides a quick morning break for 50,000 employees. Patrons include workers for such companies as Dun & Bradstreet, Texas Co., Dan River Mills, Esso Standard Oil Co.

Two oil companies got new presidents last week. Henderson Supplee, Jr., became president of Atlantic Refining Co. as Robert H. Colley moved up to board chairman. Walter R. Reitz was elected head of Quaker State Oil Refining Co., taking over from S. Messer, who now is vice-chairman of the board.





When you see repair jobs in progress, where low-first-cost pipe has been installed, you get a dramatic object-lesson on the economy of using durable material. Original installations are quickly made by pipe-fitters. But replacements call for hours of work by as many as five crafts: pipe fitter, mason, carpenter, plasterer, painter. The first failure may wipe out initial savings in cost, a dozen times over.

The fact that paying a little more for Byers Wrought Iron pipe means paying a lot less for maintenance is attested by the wrought iron pipe installations still serving in the country's older buildings, after periods of 30, 40, even 50 years.

ABC's

Wrought

Iron

of

For helpful tips on some of the many services where Corrosion costs you More than Wrought Iron, and the hows and whys of wrought iron's longer life.

wrought iron's longer life, ask for "The ABC's of Wrought Iron." Write A. M. Byers Co., Clark Building, Pittsburgh, Pennsylvania



### THE MANAGEMENT PATTERN

"... When a man works 80% of the time for the government, it leaves a bad taste in his mouth."

". . . There is no impairment to executive incentive even though executives cry their eyes out about taxes."

". . . We may be coasting on good training and experience. Future standards may be much lower."

ROM THESE quotes you get the nub of what executives in 50 large U.S. corporations replied to the question: Are present income tax rates affecting executive incentive?

The answers form the background for a recently published book by Robert B. Fetter and Donald C. Johnson of Indiana University's School of Business (Compensation and Incentives for Industrial Executives, \$5, Indiana University Press). The book follows closely a study made by Thomas H. Sanders of Harvard on the same subject (Effects of Taxation on Executives, \$3.25. Harvard University).

PROBABLY the most surprising thing about the Fetter and Johnson survey is this: Only 20% of the executives saw any evidence of letdown now.

of letdown now.

Of the rest, 25% don't believe high taxes have curtailed executive incentives or that they are likely to in the foreseeable future.

The majority, 55%, agreed with that—up to a point. Their answer to the question was: "No, but..." That "but" represents their fears that present middle management will stop trying to climb. They are concerned lest the caliber of management decline along with the difference in take-home pay between run-of-mill jobs and positions involving high-level responsibility.

On the surface, this majority has a strong case. It goes something like this: "We are already at the top of the heap. In the period while we were getting there, taxes were low enough to let us build estates. So our incentives today aren't so much financial as intangible—achievement, recognition, friendship, fidelity, and a desire for power. But when we were younger, we knew the payoff for success would be worth-while in dollars and cents. That isn't true

today. Up to \$15,000, a man's income goes up sharply, but above that figure the payoff after taxes may not be worth the effort. Smart young men may chuck the intangible incentives—which really bring him to the top—because the financial rewards aren't enough."

That sounds like a good argument. In a way, they are saying the younger men are losing their drive. Looked at objectively, that smacks of the age-old attitude: "The younger generation is going to not."

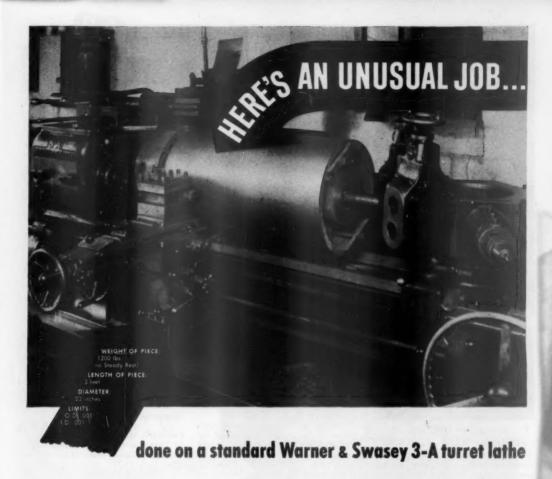
T'S HUMAN nature for the executives to reject the idea that taxes have impaired their own incentive. Because they feel certain that high taxes must have some affect on incentive, they decide it is a delayed action, hitting only the younger men.

Actually, the reverse may be true. The men who have already arrived might well be the first to have their incentives dulled by today's high

Today, because of taxes, a man 50 years old or with a lot of seniority will probably think twice about leaving his company, even for a substantial boost in paybefore taxes. Opportunities within his own organization may be turned down, too, when he weighs the risk of failure against the amount of income left after taxes.

FOR YOUNGER MEN, that isn't the case. New responsibility offers (1) a challenge to their talents, (2) an increase in pay, which at their level is bound to mean a raise in living standards, and (3) the accountements that go with bigger jobs. Besides, the recognition and sense of achievement that accompany promotion help spur the younger men.

Tomorrow, it may cost companies more to get and keep a nucleus of future top managers. But only a confiscatory tax—or one that bites much deeper at the lower levels than now—is likely to nip executive drive from below. Despite high taxes, there is still a big difference between a \$15,000 and a \$50,000 one. And that's not counting the prerequisites and fringes like hefty expense accounts that the bigger positions rate.



THE HALEY MACHINE COMPANY of Springfield, Ohio, contracts to produce massive coalcrusher rolls.

These dense cast iron rolls weigh 1200 pounds each. They are 36" long and 20" in diameter. The two hub bores, 6" and 9" long, must be finished to .001", and the O.D. to .005". All diameters must be held concentric within .005".

The roll was gripped internally and machined with no steady rest—held securely by the 3-jaw scroll chuck and two light tie rods. Two chuckings were needed, one for each end.

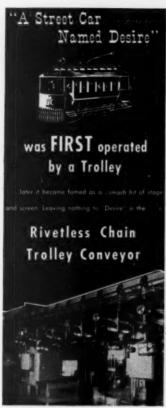
All limits were held, with an excellent finish

obtained. The surprisingly fine results have assured Haley production men that this job can be done profitably on a Warner & Swasey Turret Lathe.

The size and weight of this job, demanding smooth finish and unusually close limits, clearly shows the extreme rigidity and accuracy built into each Warner & Swasey Turret Lathe. Why not find out how this rigidity

and accuracy can help you solve your turning problems? Call your nearest Warney & Swasey Field Representative or write...

WARNER & SWASEY Cleveland



### another FIRST by JERVIS B. WEBB COMPANY

Simple and efficient is the Webb Trolley Conveyor, Its 2 wheel trolleys are suspended on an overhead I-beam track and connected by a rivetless chain which serves the double purpose of spacing and driving the trolleys. Webb Trolleys are so simple to assemble to the I-beam or to dismantle that skilled labor is not required. Trolleys are arranged for pressure gun lubrication. Their triple labyrinth seal has 3 walls of steel to keep lubricant in and dirt out. Brackets are drop-forged with hardened steel wheels. Races are precision ground. Due to the lower friction with retainer type bearings the life is longer. The Drop-Forged Rivetless Chain has been designed and perfected by the Jervis B. Webb Company specifically for Trolley Conveyor Systems.





EMPLOYEES cast ballots as Standard Oil Co. of California asks them . . .

# Do You Like This Company?

Companies, like schoolgirls, are always wondering if people love them. Schoolgirls find out by counting Saturday night dates. Companies find out by taking polls.

Perhaps one of the most enthusiastic pollers in the country is Standard Oil Co. of California. The company tested public opinion in 1948, and again in 1951 (BW-Feb.9'52,p66). This year it has polled the opinions of its own employees. Results of this third poll are just in.

Machinery-Standard didn't do the polling itself; it called in the California Institute of Technology. There were two things to be gained from this: (1) The job was done on a full-time basis by an experienced organization, rather than on a part-time basis—and perhaps half-heartedly—by Standard's own people; and (2) since Caltech was an impartial outsider, employees were assured that Standard was acting in good faith and were more likely, as a result, to answer poll questions honestly.

The ballots were secret. Questions covered everything from what employees thought of the company and the oil industry generally, to specific attitudes toward jobs, supervisors, company communications. Results were tabulated on IBM cards, broken down by departments and plant or office locations. This let each department manager spot the faults and virtues of his particular operation. Departments

could compare notes, too, and profit by each others' mistakes.

• Employee Reaction—Standard thinks it worked up extra interest in the poll by promising in advance to publish the results—whatever they turned out to be. Employees responded enthusiastically. Of 18,000 in the parent company and seven subsidiaries—from executives to office boys—15,715 obliged by answering the pollers' questions.

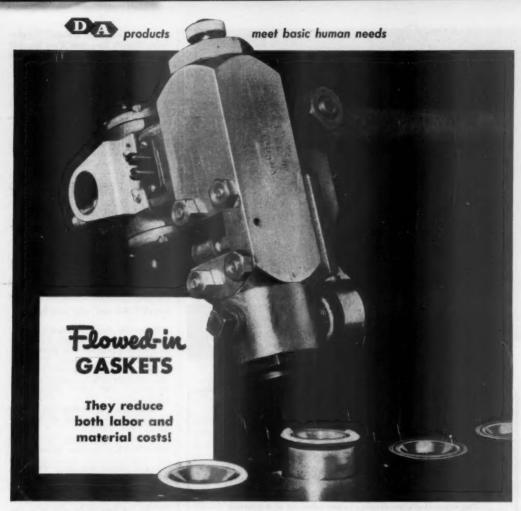
Not only did they answer the ques-

Not only did they answer the questions; they made 45,000 voluntary comments of their own. This was far more than Caltech had expected. Like answers to the direct questions, these comments were tabulated on separate punch cards, then compiled on special sheets for each department.

 Results—If Standard was wondering whether its employees loved it, it had a chance to blush prettily when the vote was counted. The company made out well on almost every question.

Of course, there were plenty of beefs. And there were many instances where employees showed themselves surprisingly ignorant of company affairs. A whopping 39%, for instance, thought Standard was a subsidiary of a holding company or was controlled by some kind of financial group owning all the other Standard companies. It isn't; like the other Standard outfits, it's a fully independent corporation.

A third of the employees thought they themselves paid half or more of



Gasket costs tumble mighty fast whereever Dewey and Almy Flowed-in gaskets are used! In the first place, you get sizable savings in material costs. More important are the dramatic economies in labor costs: stamping and gluing operations are eliminated, as well as difficult circular crimping and welding operations.

Chances are good that there is a Dewey and Almy Flowed-in synthetic resin or rubber gasket material adaptable to your needs. They are now being used to create effective seals against moisture, oils, many solvents, hydraulic fluids, heat and cold, weather, gases, pressure . . . to form shock-resistant cushions between component parts.

Application is simple. A liquid compound is flowed onto a horizontal or vertical surface, then baked into a solid rubbery gasket. One-man semi-automatic machines produce up to 50 installed gaskets per minute; automatic machines produce 300 per minute.

Both materials and equipment used in this process are a result of Dewey and Almy industrial research in the chemistry of small particle dispersions. It is a continuing research program that has brought benefits to almost every industry, through such varied Dewey and Almy products as: sealing compounds; Cryovac process for food packaging; adhesives; organic chemicals; construction products; shoe products; dipped rubber products; textile printing products; soda lime.

Cut gasket costs! Send for this informative booklet now!

DEWEY and ALMY
Chemical Company

Plants and sales offices throughout the world.

Cambridge	Almy Chemical Company 10, Mass.
	me without obligation a copy of your bookle ynthetic Resin and Rubber Gasket Materials"
Name	
Сомрану	
Title	
Address	



At Leading Office Furniture Dealers from Coast-to-Coast

# PLANT SAFETY

... the Supervisor's Role

The supervisor's importance in any program of industrial accident prevention is stressed in our booklet, "Safety As It Applies to Supervisors." Drawn from the wide experience and professional knowledge of Marsh & McLennan's safety engineers, the information and recommendations presented are being applied by many progressive companies in varied industries throughout the United States and Canada. Write for your copy today

### MARSH & McLENNAN

INSURANCE BROKERS . AVERAGE ADJUSTERS

Chicago New York San Prancisco Minneapolis Detroit Boston Los Angeles Pittsburgh Seattle St. Louis St. Paul Duluth Indianapolis Portland Superior Cleveland Buffalo Washington Columbus Phoenix Vancouver Toronto Montroal Havana London

the bill for employee benefits. Another third thought they paid from one-half to something over one-fourth. Only a third were right: The company pays three-fourths.

· What Now?-When Standard finished its public opinion poll in 1948, it took the results, tabulated them, and used them from then on to guide its public relations program. Largely because of that, the second poll in 1951 showed that the company had made big gains. Standard hopes to repeat that

performance with its employees. Wherever the poll has shown up a substantial percentage of dissatisfaction or ignorance among employees (Standard calls 18% substantial), manage-ment plans to make some changes.

### Deferred Pay

Is it legal to promise an executive a retainer after he retires? How will the tax work? As yet, no one is sure.

When the Salary Stabilization Board gave the green light recently to pension and deferred profit-sharing plans (BW-Mar.15'52,p46), it cleared away most of the uncertainties about executive compensation schemes—with one big exception. The joker: deferred pay contracts.

This week the betting was there'd be some sort of ruling in favor of these, too.

· What and Why-Under the deferred pay contract, a company agrees to pay an executive a fixed annual salary for a limited number of years. The company also promises that, when he retires from active duty, he'll get an annual retainer, either for some set time or for life, as long as he acts as a consultant to the company and doesn't join a competing firm. This (1) gives the company a hold on the executive. and (2) lets the executive spread his income into years when his lower earnings will substantially cut his tax bill.

· Legalities-So far there have been no clear-cut SSB rulings on such contracts. Many companies are holding them in abevance. All SSB has said to date is this:

It's illegal to promise salary increases, beyond those allowed by SSB, for some future date when controls are no longer

That warning was issued in January. In dollars and cents, it means the Bureau of Internal Revenue will have grounds-after controls die-for disallowing as tax deductions any salary boosts that companies have put off with promises to pay later.

That wasn't true in the World War

II freeze. Because stabilizers issued no such warning, Woodlawn Park Cemetery Co. won a Tax Court case, permitting tax deductions in 1945 for pay increases the company had promised salesmen during the 1943 freeze.

ised salesmen during the 1943 freeze.

• Tightrope—Now, because of the SSB warning, top consultants generally agree promises to boost pay are probably taboo. But they are besieging SSB with requests for some sort of ruling on bona fide deferred compensation contracts. Often these don't involve salary boosts; they merely assure an executive, say, five years before he retires, that he'll draw substantial income after he leaves active management. Even so, companies figure SSB's January warning casts some doubt on such contracts.

• Undecided—SSB will admit it has dodged the problem so far. There are a couple of reasons. For one thing, there is no precedent from World War II. For another, deferred pay plans are still up in the air as far as the Bureau of Internal Revenue is concerned. BIR hasn't signaled one way or another what will happen to the schemes (a number are in effect) even in normal times. If it rules against them, then executives holding the contracts could be taxed in one year for the whole value of the 10-year or 15-year contract—a tax bite that could very well wreck the plans.

Since SSB doesn't want to tread on BIR territory, it has put off making

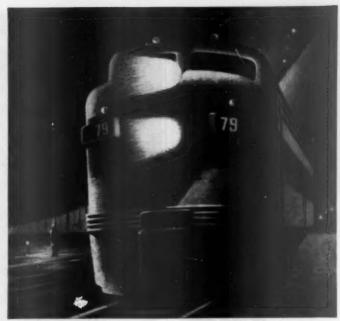
up its own mind.

• A Good Chance—From what can be learned now, it's pretty safe to say deferred pay contracts eventually will get clearance. Roughly, the reasoning is this:

When a contract is written, it usually creates a new position for the executive -that of a consultant-at the end of his active period in management. Postactive income is spread over a number of years, and it's usually much lower than the salary in active years. (Chrysler's K. T. Keller, for instance, gets \$300,000 a year for five years, then \$75,000 a year for life. week Irving S. Olds retired as U.S. Steel's board chairman, for which he was paid \$211,000 salary. He now will get, besides a pension of \$14,000, deferred compensation of \$55,000 a year.) Besides that, the salary contracts often run 10 or 15 years-by which time controls should have ended.

Because of this, there is nothing in deferred pay contracts that might upset stabilization. That's not true of outright promises to pay salary boosts as soon as controls are lifted. If enough companies adopted that freeze dodge, it would bring a flood of promises to pay bigger salaries—and this conceivably might prolong the need for

controls.





### "Come in on Track Two"

A radio message like this from

yard office to train crew is one way The Milwaukee Road has of speeding freight through yards, cutting time between shipper and receiver—our constant aims.

With respect to everything that makes a fine modern railroad, the Milwaukee is right on the beam. High speed roadway. Diesel and electric power for all the big hauling jobs. Good transportation men who are up on their toes.

If you do business in Milwaukee Road territory, or are planning to expand in our direction, we may have the answer to your shipping problem. Just call your nearest Milwaukee Road agent.

### SHIP-TRAVEL

Look at the map!



## THE MILWAUKEE ROAD

Route of the HIAWATHAS

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD



Gruen Saves Time With Buschman Conveyors BUSCHMAN Universal Overhead Coble Conveyors are a "natural" for close-quarter operation. Head space for aisle passage is accomplished by quick vertical rise curves and transfer of parts from batteries of belt conveyors to cable conveyor is easily executed. Special pendant hangers keep parts in position regardless of incline. Moving ceiling storage is created. Botted ceiling supports make possible future system rearrangement. Many hundreds of users now standardize on BUSCHMAN Overhead Coble Conveyors. Write for details.

The E. W. Buschman Co. 4477 Clifton Ave. Clincinnati 32, Ohio





A NCHOR FENCE protects your plant completely, day and night! Trespassers, thieves, and other trouble-makers can't get in! Anchor lets you make full use of outdoor storage space... helps you control plant traffic more efficiently!

And, Anchor gives you long-lasting protection. Deep-Driven Anchors hold the fence erect, in any soil or weather. "Squar-Form" corner posts and square frame gates are other exclusive features that make Anchor Fence your best buy!

FOR FREE CATALOG, write: Anchor Post PRODUCTS, INC., Fence Div., 6675 Eastern Ave., Baltimore 24, Maryland.



# COMMODITIES



CLASSIFYING, SPLITTING MICA takes a keen eye and a steady hand, and . . .

# There's Money in Mica for



CENTERS of the boom in North Carolina, leading mica state, are the regions of Spruce Pine, Sylva, Franklin, and Shelby. Buying depot is at Spruce Pine.



TRIMMING determines the size of sheets, hence the value of the mica. So . . .

# Mountaineers With Savvy

Mica has come a long way since the days when it was chiefly used as "isinglass" windows in the doors of wood and coal stoves. Now it is an indispensable element of electronic and electrical devices—so important to defense that the government is ready to spend \$40-million on stockpiling in the next three years.

The General Services Administration wants to store up about 25,000 tons of high-grade domestic mica, the ruby variety deemed best for electrical insulating purposes. GSA is paying \$600 a short ton for unfinished mica, from \$3 to \$70 a lb. for finished mica.

• Purpose-It's cheaper to import ruby mica from India and Brazil; GSA's

premium prices run four times the foreign prices for equivalent grades. The stockpiling program is intended:

stockpiling program is intended:

• To build up a reserve supply of a commodity essential to such defense equipment as radar, geiger counters, proximity fuses, guided missiles, etc. Officials have vivid memories of the pinch when Indian supplies were cut off for a while in World War II.

 To expand domestic production to at least four times the current yield.
 The U.S. now produces only about 15% of its total mica needs. Production of the strategic grades is running around 300 tons a year.

• Leading States-The stockpiling program brings cheer to three regions of



# MOSINEE Forest Fibres help improve insulation



Many kinds of insulation have been advanced by scientific adaptations of chemically controlled MOSINEE fibres. From building-papers to electrical

conduits, MOSINEE forest fibres help provide insulation so necessary to the American way of life.

In many other fields, too, MOSINEE Forest Fibres are made to perform specific functions. Fibres of dependable uniformity . . . fibres soft, stiff, tough, flexible, absorbent, non-absorbent, acid or alkali-resistant, mold resistant . . . fibres with dielectric properties . . . fibres engineered for plastics and many other industrial uses.

From forest to fibres, MOSINEE scientific controls assure uniform dependability.

MOSINEE PAPER MILLS CO.
MOSINEE, WISCONSIN



MOSINEE makes fibres work for industry



### Kroehler, Famous Name in Furniture, Chooses COOLITE GLASS by Mississippi

Kroehler Manufacturing Co. safeguards the high quality of its famous furniture by flooding workrooms with filtered daylight. Three exposures in this modern factory are glazed with 5800 square feet of Coolite, Heat Absorbing and Glare Reducing Glass. The precise workmanship of the woodworking shop and careful skill of the sewing department would be difficult to maintain under the eye-fatiguing glare of raw sunlight. But Glare Reducing Coolite strains out the unwanted properties in natural light... floods rooms with softened illumination that aids seeing tasks... keeps interiors more comfortable by helping to absorb solar heat rays.

Coolite has a refreshing, cool, blue-green color, modern in appearance. It reduces maintenance... no painted windows, makeshift shields or bothersome blinds. If you are planning new construction or modernizing existing facilities, investigate Coolite. See how it can provide increased efficiency and economy for you. Get in touch with your nearby Mississippi Glass distributor today.

Mississippi offers a wide variety of patterns in translucent, figured and wired glass. All are scientifically designed to distribute daylight to best advantage. "Visioneer" your buildings with glass by Mississippi.

Send for free catalog, "Coolite Heat Absorbing and Glare Reducing Glass." Samples on request.



MISSISSIPP Glass COMPANY

NEW YORK . CHICAGO . PULLERTON, CALIF.

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS

the country. North Carolina is the nation's top producer, followed by New Hampshire and South Dakota. You can pinpoint the effects of the boom, though, on the mountain village of Spruce Pine, N. C. The Spruce Pine area claims to produce 60% of domestic ruby mica and to process virtually all that's mined in the U. S.

A lot of Spruce Pine's mica output is the clear, or green, variety. In fact, only about 25% of all domestic mines produce ruby mica. Local miners contend that green mica is just as good for electrical uses as ruby mica, as long as it is equally free from imperfections. But the electrical industry doesn't look at it that way. Its buyers don't want to take chances with a material that is expected to prevent leakage of electricity at temperatures as high as 2.200F.

Besides Spruce Pine, North Carolina has three other mica centers (map, page 118): Sylva, Franklin, and Shelby. But Spruce Pine has one of three GSA depots for mica buying; the others are at Keene, N. H., and Custer, S. D.

• Knowhow—Sheeting and trimming mica is a specialized job. The U.S. has only about 1,500 sheeters and trimmers, and almost all of them live in or near Spruce Pine. They spend most of their time farming, but pass the mica trade techniques down from generation to generation.

These mountaineers don't expect much competition for the new big money in mica mining and processing. They have seen outlanders too often lose their shirts in sporadic cases of

"mica fever."
Families of mountaineers have been mining mica since about 1869, when some large veins were found. In the interval between the demand for isinglass for stove windows and the demand for insulation material for electronic gadgets, they sold wet-ground mica to the paint industry and dryground mica to oil well drillers and other users. Mica also went into all sorts of electrical equipment, but domestic mines normally can't compete with India's abundant supplies and cheap labor.

During World War II the government set up the Colonial Mica Corp., to finance mica miners and buy their output for resale to private companies on an allotment basis. The high prices lured many get-rich-quick outsiders to Spruce Pine, most of whom wound up minus their bankrolls.

"There was one thing they forgot," says S. T. Henry, who is, among other things, editor of the Tri-County News at Spruce Pine, and who has a finger and a couple of dollars in practically everything that goes on in the area. "Mica mining needs knowhow. They



# Tonic for Paint Plants

• As lacquer men in paint plants will tell you, solvents with an appetite for nitrocellulose are the key to better quality products. Shell chemists, using petroleum, are producing solvents with the best appetite of all: ketones.

Taking advantage of this, lacquer makers can dissolve solids faster, thus boost output. And ketones allow use of more low-cost diluents. Tonic effect: lower production cost.

To lacquer users, the greater capacity of ketones for nitrocellulose means greater surface covering power . . . tougher, longer-lasting coatings.

Development of better solvents is another example of Shell Chemical's partnership with industry and agriculture. Application of petroleum chemistry to your needs is our constant purpose.

# Shell Chemical Corporation

Chemical Partner of Industry and Agriculture
NEW YORK - SAN FRANCISCO



# Ahead of the Field TORIP-PROOF MOTORS

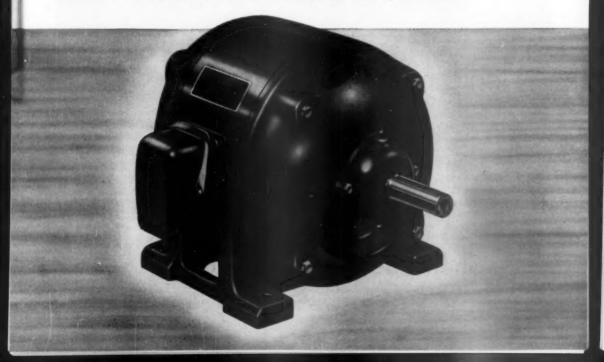
Louis Allis Drip-Proof motors combine with every detail of their pleasing appearance—Quality—Performance—and Stamina. They have the highest type of craftsmanship in their manufacture, ample factors of safety in their rugged design and long trouble-free operating life.

For over 50 years, The Louis Allis Co. has designed and manufactured electric motors to fulfill the

changing requirements of an expanding American Industry. As a result, we can offer one of, if not the largest selection of types and sizes of special and standard motors available today. They are available in a complete line — from ½ HP to 1000 HP.

For quick, dependable service, contact your nearest Louis Allis Sales Engineer.





refused to hire experienced hands, and they wouldn't listen to expert advice." · Tricky to Mine-Successful mica mining takes a sixth sense about locating a vein and working it properly, Henry says. Mica occurs in irregular formations, some veins an inch thick, others many feet thick. Because top prices are paid for the larger sheets (a finished sheet 21 in. square at top grade brings \$15 a lb., a sheet 10 in. square fetches \$70), extreme care must be taken not to damage sheets too much during drilling and dynamiting.

When it comes from the mine, the mica is first hand-cobbed; that is, cleaned and freed from impurities. It then looks like a ragged-edged, darkcolored book, with thousands of laminations that can be peeled down to sheets less than .001 in. thick.

· Make or Break-Classifying, splitting (which workers call rifting), and trimming the sheets make up the crucial stage of the operation. An experienced worker can double or even triple the value the mine owner will get for his mica. He can make or break the owner.

In classifying, the worker at a glance determines the color and grade of the mica. In the splitting or rifting operation, he peels away part of the laminations to remove air bubbles, stains, cracks, or other imperfections. In the trimming, he cuts the mica into straight-edged shapes.

The only tool is a razor-sharp short knife used for splitting and trimming. Women and children often help out in the processing. Pay runs between 75¢ and \$1.50 an hour for experienced workers; that's considered high for the

"A worker has to coordinate eyes with judgment," says Henry. "He has to make at least a dozen judgments on each piece of mica he works with, and make them in a matter of seconds.

One of the Spruce Pine plants employs two blind workers in processing very thin sheets of mica on special order. So skilled are these men that they can tell, by touch, a .002-in. piece from a sheet .001 in. thick.

· No Substitutions-Fletcher Phillips, a third-generation mica worker who now owns an interest in some of Spruce Pine's 30 or 40 mica plants, tells of workers who can hold a piece of handcobbed mica to the light and identify its source. "I had a man," he says, "who could tell whether a piece of mica was from Georgia, New Hampshire, or Avery County, N. C. It's something that comes from experience."

GSA has hired experienced Spruce Pine mica men to do their buying at the local depot. That's one reason no one thinks it's possible to buy some Indian mica and try to pass it off as

domestic stuff.

### One big reason why America



### produces so much and lives so well



## is that today the average freight train



### carries more freight...and carries it faster



### ... than ever before in history.

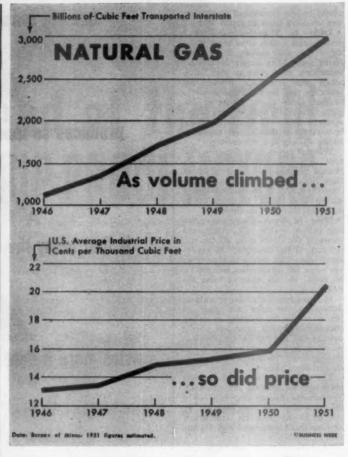


WASHINGTON 6, D. C.

You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.







# Gas Rates Spiral Upward

Heavier loads on pipelines bring higher costs. That means the user will go on paying higher prices—as long as natural gas can hold its own with competition.

The price of natural gas—one of the fuel's biggest selling points up to now—is on the rise. Right now the industry is far from worried about pricing itself out of the fuel market. It is banking on its other merits to hold its competitive ground for quite a long time to come.

• Follow Suit—Early this month Texas Eastern applied to Federal Power Commission for rate boosts totaling about \$40-million a year, which would jump Texas Eastern's rates about 37%. That's the biggest single increase ever filed. And it's just the beginning. The commissioners are clearing their desks for a rush of applications within the next

two months that they expect will amount to more than \$30-million a year—twice the yearly increases asked for last year. This, added to the \$137-million in increases now pending, represents an over-all increase of 20% in present prices.

In spite of this wholesale plea for higher rates, experts believe the position of natural gas in the competitive market won't be hurt very much. Gas, they point out, is still about the cleanest fuel and the easiest to handle. Furthermore, competitive fuel costs have gone up, too: Industrial fuel oil went from \$1.09 a barrel at the end of the war to more than \$1.76 now; coal

# Announcing Nationwide MAGNAFLUX





MAGNAFLUX Laboratory Inspection

Serves as your inspection department to whatever extent you require or desire, at any stage of processing or production. Available through 11 Magnaflux Corp. Laboratories.



MAGNAFLUX **Field Inspection** 

Prevents unpredicted failure in critical production, construction and erection equipment by timely detection of faulty welds, fatigue cracks, fractures, etc. Ready to serve you in your plant or in the field anywhere in the United States.

Low-cost parts inspection for smaller plantsfleet overhaul-specified inspection

For plant and field inspection of large equipment anywhere

THIS MAGNAFLUX-OWNED and OPERATED SERVICE offers you full facilities for non-destructive testing and inspection, where limited use or special requirements make investment in inspection equipment impractical.

It makes available to you all the inspection methods of Magnaflux Corporation: MAGNAFLUX, MAGNAGLO, ZYGLO-the "big 3" used by more industries, for more inspection operations than all other methods combined - as well as STATIFLUX, PARTEK, SONIZON and STRESSCOAT. One or another of these methods may be applied to magnetic or non-magnetic metals. glass, ceramics and other materials.

Magnaflux Commercial Inspection includes both Laboratory Inspection

of parts-from one to 1,000,000and Field Inspection of machinery and equipment anywhere.

By detecting defects before they waste materials, manpower or production time...by making invisible defects visible before machinery breaks down in service, Magnaflux Commercial Inspection is saving money for hundreds of companies. It is also preventing needless rejection of materials or parts for seeming defects that are actually harmless to service life.

If you have an inspection problem



or must meet contract requirements for inspection-these booklets may help you with the practical solution. Mail coupon for either or both.





ercial Inspection Available Through 11 Principal Cities New York 23 ° E. Hartford, Conn. ° Chicago 47 ° Cleveland 15 Detroit 13 ° Witchita, Kon. ° Dallas 9 ° Heuston, Taxas Los Angeles 58 ° Oakland 6 ° Odessa, Taxas

MAGNAFLUX CORPORATION 5906 Northwest Hwy., Chicage 31, Illineis Please send me a copy of your bulletin on: Laboratory Inspection Field Inspection
Name
Company
Address
City 7ana State

# Only plywood



GRADE-TRADEMARKS on industry-inspected Douglas fir plywood do far more than identify type and grade-they are positive assurance of quality products, made, inspected and tested in strict accord with rigid U. S. Commercial Standards. Every day, plywood samples are randomselected from factory production lines. Some are given accelerated performance punishment in industry laboratories. Others get extended field exposure tests. This industry quality-maintenance program is but one good reason why Douglas fir plywood can be depended on for hundreds of building, remodeling and manufacturing jobs. Plywood will meet your tests, too!

U. S. Commercial Standard CS45-48 details perform requirements, gives types, grades, sizes. For free copy, v. Douglas Fir Plywood Association, Dept. 415, Tacoma, W.





2 Large Panel Size





4 Workability



**S** Attractive Appearance





Douglas fir plywood is real wood, made by nwinding" giant logs

into thin wood sheet which are inseparably

to form large, light nels having beauty and great strength



spiraled from \$10.50 a ton to \$16.85. Electricity rates are about the only ones that haven't moved up materially

· Snowball-Actually, from 1930 to 1945 there were more cuts than boosts in natural gas prices at point of con-sumption. Then, when the war ended, expansion began: By 1951 natural gas pipelines carried nearly three times the volume of 1946. Retail rates followed right on up (chart, page 124). By June 30, 1951, increase applications amounted to \$9.3-million a year; during the last six months of 1951, FPC was swamped with 57 applications requesting increases of \$81.5-million a year.

To put this snowballing development in its proper light, though, you have to keep some important qualifications in mind. The first, of course, is the rapidly increasing volume; that is, each year's applications cover a much larger volume of gas being transmitted in inter-state pipelines. This means, too, that the pipelines are reaching farther and farther from the source of supply, with mounting transmission costs. Another thing that affects consumer prices: Once FPC gives an increase to a supplier pipeline, purchasers from this line ask for boosts to cover their increased

· Good Reason-Suppliers and distributors can't always count on getting as much as they ask for. FPC has a habit of slicing sizable cuts, before it passes on applications. Take the case of Tennessee Gas Transmission Co., which asked for \$18-million in increases last year. FPC finally settled for \$11.4-million, not quite the boost Tennessee asked for.

The Tennessee case gives a good idea of the reasons pipelines are forced to ask for increases. First of all, boosts in producer prices accounted for part of the increase-about \$2.4-million of the \$11.4-million. Then came federal and state taxes, \$3.9-million; wage rates and other employee benefits, \$1.2-million. The rest went for rising construction costs and for new facilities and higher operating costs.

· Hand-Out-Construction and operating costs have been big factors in the rate rise picture for some time. Now tax rises are looming closer to the foreground. One FPC commissioner puts it this way: Every time the commission approves a rate increase that allows the pipeline a net profit of \$1, it means that Washington gets \$1.08 in corporation income taxes. Naturally, the consumer pays a chunk of this.

Ordinarily, FPC allows pipelines about 6% return on their net investment. Since a company has to get an FPC certificate in order to build the lines, the commission is in a good spot to keep close tab on these net invest-



sound test for sounder cars. Even a noise which normally would escape the human ear might be a signal that something is not quite right in a car's construction. That's why Chrysler Corporation engineers use sensitive recording instruments to inspect each new model as it is developed. Cars are test-driven at

varying speeds in the laboratory, as you see here, and other tests are made on the road—with microphones and recording apparatus riding along with the test engineers. These sound tests help engineers locate potential trouble spots and eliminate them, giving you even sturdier, more valuable cars and trucks.

# WHAT MAKES A CAR WORTH MORE TO YOU?

You measure the value of a car very simply: a car that performs better when you're driving it, then brings a higher return when you trade it in, is a car that is worth more to you.

The value you get in a Plymouth, Dodge, De Soto or Chrysler car, or Dodge truck, is the result of a lot of little things, as well as big ones. Engineering, testing, developing new processes—all these add up to motor vehicles that operate better and longer, and give greater satisfaction. This is important to owners, and to the nation, too, because we all depend so much on the cars and trucks that help us live and work better.

Today's defense of freedom depends a great deal upon the military equipment produced by the same Chrysler Corporation skills which give you these more valuable motor vehicles.

## CHRYSLER CORPORATION engineers and builds PLYMOUTH, DODGE, DE SOTO, CHRYSLER CARS & DODGE TRUCKS

Chryslar Marine & Industrial Engines • Olitie Powdered Metal Products • Mispar Parts & Accessories • Airtamp Heating, Air Conditioning, Refrigeration • Gyaleweld Coment Products



PROOF OF VALUE. Newark, N. J., cab driver Albert Cornell with his Plymouth taxis. Like the many other Plymouth taxis in hundreds of cities and towns, this car operates day and night in rain, shine, snow, sleet and heaviest city traffic. A car has to be tough to stand up under such a grind. The engineering skill that built such faithful performance into Albert Cornell's cab puts the same kind of hard-working value into all Chrysler-built cars.





SECRETS OF LONGER LIFE. That solid-looking metal bearing at left actually contains a myriad of tiny pores, each holding a supply of oil. This Oilite metal is used for bearings in hard-to-reach spots and other places in your car. At right is a "mirror" of tough metal, Superfinished by a special process which keeps wear of moving parts to a minimum. These two Chrysler Corporation developments, examples of practical imagination at work, are big reasons for the extra value in Chrysler-built products.

### RANSPORTATION

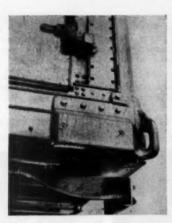


PROBLEM This cargo has just been brought to the dock by a trucking company. The next leg of its journey is by sea. It has to be loaded on . . .



THIS BOAT with minimum risk of damage, minimum loss of time, and minimum

# How to Send a Loaded Truck Trailer



IT WAS done by lifting whole van by hooks, while . . .

It's more or less axiomatic in freighting circles that the fewer times a piece of cargo has to be shifted from one carrier to another during its journey, the happier everyone concerned is likely to be. Every time you unload something from a railroad car or a truck and stow it aboard a ship, you run into additional handling costs, the risk of



HINGES are protected by special shields. When trailer van is lifted up . . .

damage and pilferage, and loss of time. This has been a particularly big headache for shippers operating between the U.S. and Alaska. There is no direct rail route to Alaska; freight has to be loaded on ships at northwestern U.S. ports, ferried up the coast, handed back to land transportation in Alaska. But the situation isn't hopeless. An en-



CHASSIS remains behind. Vans can be piled like orange crates because of . . .

terprising company has come up with a

remedy (pictures).

• The Medicine—Ocean Van Line, new subsidiary of Ocean Tow, Inc. (U. S.-Alaska barge operator), figured that it was too much trouble to unpack freight from a truck-trailer and repack it onto a barge. It would be a lot easier, the company thought, simply



expense. To meet all these requirements, Ocean Van Line figured out . . .

# Van to Sea

75



FLANGES on the four upper corners of each van to hold top van in place.

to hoist the whole trailer box aboard. That's just what OVL is doing.

OVL's trailer vans lift right off their wheels. All vans and chassis units are exactly alike, so that any van can fit onto any chassis. There are special hooks on the vans for cranes to hook into. This makes the whole land-to-sea changeover a simple, one-step opera-

J. J. Newberry Co. REPORTS

# "Cummins Multiple Marking DOES THE WORK OF 5 CLERKS... saves us \$10,000 a year!"



# Here's how to make similar savings in your business!

With Cummins Perforators, J. J. Newberry Co. cancels 4,000 invoices a day as a fill-in job... with no traceable salary expense. "If this canceling were done by hand," they report, "it would take four to five clerks. At \$40 a week, five clerks would draw \$10,000 a year for a wasteful operation that is better performed for \$120 a year with a Cummins Perforator."

Because Cummins multiple marks 20 items at a time, an average clerk can easily mark 20,000 items an hour. If you validate, approve, date, receipt, number, code or cancel invoices, purchase orders, shipping tickets, sales slips, coupons, labels or other internal papers, a new high-speed Cummins Electric Perforator will pay its cost many times over in your business, too.\* And the holes-you-can-read mean permanence, legibility, everlasting safety.

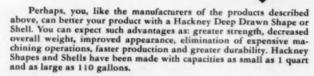
Send the coupon for more information about how Cummins Perforators can bring big savings to your business.

# GUMBISS AND BANKS SINCE 1887

get this FREE booklet	Clip and Attach to Your Letterhead Today Cummins-Chicago Corp., Chicago 49, Ill., Dept. BW-52  *I want proof and facts. Send ma Certified Gould Reports on several present users.  Hams		
	City	State	ļ
AMM 1 79 A 5 1 2		**************************************	



Can your product use these advantages



### Many other cost reducing Hackney products

Shapes and shells are just one phase of Pressed Steel Tank Company manufacturing facilities. They also produce cylinders, drums, barrels, kegs—products for vastly diversified industries, chemical, LP-Gas, food products, construction, etc.

Whatever you manufacture, chances are there is a Hackney product that can benefit you. Remember, Hackney products are backed by Pressed Steel Tank Company's design and manufacturing facilities—by almost 50 years of specialized knowledge of metals and of the properties of gases, liquids and solids.

For full information on the products that interest you, write us.

### **Pressed Steel Tank Company**

Manufacturer of Hackney Products

1493 S. 66th St., Milwaukse 14 1397 Vanderbill Conceurse Bidg., New York 17 207 Henne Bidg., Chrelland 15 936 W. Peachtree St., N.W., Room 115, Atlanta 3

936 W. Peachtree St., N.W., Room 115, Aflanta 3 208 S. LaSelle St., Room 789, Chicago 4 855 Roosevelt Bidg., Los Angeles 17

containers for gases, liquids and solids



"... As a start, OVL has ordered 200 cargo boxes, with enough chassis units to go around ..."

TRANSPORTATION starts on p. 128

tion: The trailer is driven up alongside the boat, and the van is lifted aboard. The chassis stays ashore, ready to take on the next van that comes in.

When the barge arrives at its destination, the procedure is simply reversed: The van is swung overboard and plunked down onto a waiting chassis. Or, if the cargo can get where it's going more easily by rail, the van can be loaded onto a flatear.

This way, the cargo isn't touched from the time it's packed into the trailer at one end of its journey, to the time it's unloaded at the other. Not only does this speed things up; it almost eliminates the risk of damage and pilferage, and it cuts labor costs for handling.

• Setup—OVL's work on this system has been mainly experimental so far. Late this month, it expects to start hauling military cargo. Then, when it has gained a little experience, it hopes to get into the common carrier business. (In Alaska, no certificate of necessity is required for common carriers; you just grab some equipment and some customers, and you are off.)

As a start, OVL has ordered 200 cargo boxes—the trailer vans. Since it needs wheels for the vans at both ends of the sea route, it has also ordered enough chassis units to go around—half to be stationed in the U.S., half in Alaska. In addition, it expects to have 10 tractor units—five at each end of the sea leg. When deliveries are all in, OVL will have about \$1.6-million worth of equipment.

In most cases, OVL won't do the land hauling itself. Regular trucking companies will hook onto the trailers as they come ashore, take over the delivery job from there.

• Specifications—OVL's vans are made by Brown Trailers, Inc., Spokane, Wash. The vans are aluminum, weight 4,630 lb. They're 30 ft. long, have a capacity of 1,545 cu. ft. Their structure is monocoque (where the strength is in the outer, skin rather than in an internal framework). They have welded steel pipe at each of the four corners for additional strength. Payload is about 25 tons.

At present, OVL uses two barges the Alaska Cedar and the Alaska Spruce, owned by its parent, Ocean Tow. Each of these boats can carry 66 vans: 54 in holds below deck and the other 12 on

Special fittings on the vans make it



# Office noise

- from chattering voices . . .

. . and telephones and typewriters . . .

0

e

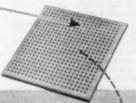
... reflects off hard surfaces . . .

... lowering efficiency ....

... and causing unnecessary fatigue.

You can stop it

Work goes faster, lost time decreases, and efficiency increases if you have an Armstrong's Cushiontone® ceiling to soak up nerve-jangling noise. You'll be surprised at Cushiontone's low cost, too. For free booklet, "How to Select an Acoustical Material," write Armstrong Cork Company, 5205
Walnut St., Lancaster, Penna.



### ARMSTRONG'S CUSHIONTONE

with a ceiling of . . .





# that Moved!. the answer to another actual plant location problem

S Ca O's "Ha

Plant executives and engineers of a large industry recently made "on-the-spot" surveys of half-a-dozen potential plant sites, many miles apart. And they did it in a matter of minutes ... without ever leaving their offices!

These widely scattered industrial sites were literally "moved" to the desks of these men in startling three-dimensional clarity. So effective was this method that engineers were actually able to estimate grading and clearing requirements in addition to obtaining valuable information on topography, road and railroad locations and other facts vital to proper site selection.

This unique and time-saving "site movement" was made possible by detailed stereoptical air survey maps prepared by C&O's Industrial Development Department.

### in Point" surveys are strictly confidential

Finding the right spot for your new plant can be a costly, timeconsuming job for you and your organization. Let our experts in this field make the task easy by preparing a special PIN-POINT survey to meet your requirements. For further information, write Chesapeake & Ohio, Industrial Development Department, Terminal Tower Building, Cleveland 1, Ohio.

## Chesapeake & Ohio Railway

SERVING: Virginia · West Virginia · Kentucky · Ohio · Indiana · Michigan · So. Ontario



". . . OVL's vans are equipped with heating and cooling units . . ."

TRANSPORTATION starts on p. 128

easy to pile them one on top of the other. Since they can be packed into the ship's hold so closely, very little space is wasted.

• Cooling and Heating—An added wrinkle on OVL's vans is the fact that they are equipped with individual heating and cooling units. Most railroads and trucking companies use gasoline motors for this purpose, but in a ship's hold that's out of the question because of fuel problems and the risk of fumes and explosions. For that reason, OVL uses electrical cooling-heating units. With this equipment, vans can be kept at temperatures as warm as 60F or as cold as —5F.

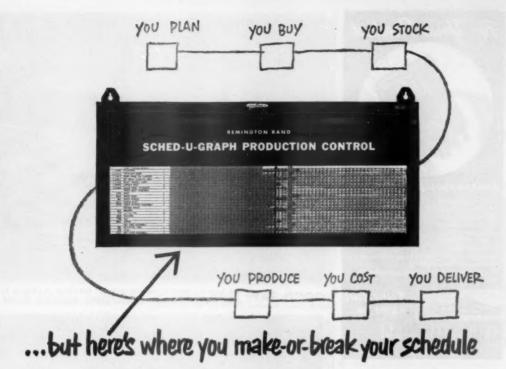
When the trailer is hooked onto a truck, power for temperature control is supplied by an a.c. generating unit mounted just behind the truck. When the van is waiting around on a dock, power can be had by plugging into any conventional circuit. On OVL's two boats, power comes from special circuits installed on deck and in one of each boat's three holds. On the government-owned Alaska Railroad, which occasionally carries some of OVL's vans, there are also special generating units.

 Forerunner—OVL isn't the first U. S.-Alaska shipper to think of the idea of loading the whole trailer box onto a barge. Alaska Freight Lines, Inc., had been doing more or less the same thing before OVL came into the nicture.

The difference, however, is that Alaska Freight puts the whole trailer onto its barges—wheels and all. This takes up a lot more space than OVL's system. Alaska Freight, early this month, went into the common carrier business; previously, setting the pattern OVL expects to follow, it had handled only military freight.

• Future—Military men have been interested in Alaska Freight's idea—and OVL's refinements—for some time. They figure it might be the answer to some of their shipping problems, particularly to the problem of getting perishable cargo to overseas supply centers.

OVL's continuous electrical refrigeration should be a special boon in the case of perishable goods. No matter how many shifts there are from one carrier to another, and no matter how many delays along the way, the cargo can be kept at a constant temperature, because its icebox goes right along with it.



Just look below. Then you'll see why production men swear by Remington Rand Sched-U-Graph. This efficient, down-to-earth device shows you, graphically, how close each job is to schedule — in time to take action if and where action is needed.

Today — as in World War II — Sched-U-Graph and other Remington Rand systems are helping plants do "the impossible" through effective control of production ... machine loading... procurement... inventory. For complete facts and significant case histories, read our new 56-page illustrated booklet "Production Control Systems and Procedures" (X 1268). Phone our nearest office for a free copy or write to Room 1062, 315 Fourth Ave., New York 10. Remington Rand Inc.

# here's how Sched-U-Graph Production Control works

Top line on this Sched-U-Graph represents a pump assembly — each line below, one component part. On each line is recorded, in advance, and day's production quota and the total to date. The sliding bar signals show work actually completed. The black vertical line indicates

d

today's date, and shows how much work should be done. In this case, all components but one the totalizer door— are on or ahead of schedule, but the whole assembly is delayed. You see the delinquent in a flash, and know exactly where corrective action is needed.

	PUMP-MOTOR DRIVEN	A PART ADDITION OF LINE AND	100
11392	ECCENTRIC		TOTAL STREET
11415	TOTALIZER DOOR	Pelay Delay	THE PERSON NO.
-11413	REAR HINGE PIN SUPPORT	on this one part	AND DESCRIPTION OF THE PARTY OF
-11421	SET-BACK COUPLING ROD	is holding up	HALF HOLDS
-11422	RESET HANDLE SHAFT	the assembly / the	i in cie
-24946	CORNER POST		STREET, STREET
-25364	GLASS PANEL RETAINER	是是是"如果你们是是是我们的。" 第一次,我们就是我们的一个人,我们就是我们的一个人,我们就是我们的一个人,我们就是我们的一个人,我们就是我们的一个人,我们就是我们的一个人,我们就是我们的一个人	T 40 00 00 00 00 00 00 00 00 00 00 00 00
	MIXER BODY ASSEMBLY	The state of the s	48 484
3356	RIVET	THE RESIDENCE OF THE PARTY OF T	State of the last
8264	MIXER BODY		50 MG 4
865	MIXER PADDLE	The state of the s	(C)





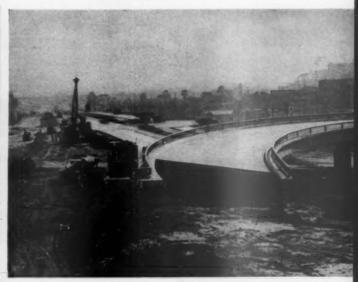
the smart vote is for DUPLISTICKERS.

If you have a condidate to support in the coming election or a product to sell with direct advertising. DUPLISTICKERS will save you time and money.

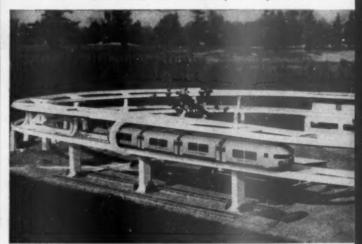
Convenient, easy-to-use...33 labels on pertorated gummed lettersize sheets...25 sheets (825labels) 604 at Stationery stores...white and 5 colors— Write today for free sample package.

EUREKA SPECIALTY PRINTING CO. 534 ELECTRIC STREET, SCRANTON 9, PA.

DUPLISTICKERS
are made only by Ewreka



GOOD TRY: Los Angeles County is building roads at a fast clip in an effort to keep ahead of autos, which have throttled public transportation, but it's...



**CONCLUSION:** The only solution is to lift part of the traffic off the ground. One possible overhead public transit system is the Duorail, above, or . . .

# Los Angeles' Transi

One of Los Angeles' biggest benefactors has become its biggest problem.

The automobile, which enables commuters to work in the city and live outside, has made the whole county one big traffic jam. The only resort is public transportation. And congestion has throttled the surface transit system to the point where commuters can't turn to it even if they want to. City and county officials see just one way out of the vicious circle, and that is up. There doesn't seem to be much chance of speeding up surface transit; the only likely solution is to lift part of the traffic off the streets and into the air.

Right now the city is mulling over three possible overhead rapid transit systems—the first new transit systems



NOT GOOD ENOUGH: Cars choke the freeways just as soon as they are opened, leaving no surface room for public transit.



MONORAIL. Cars hang suspended from a single rail. System would double present bus speeds. It's one of three ideas Los Angeles is considering.

# Problem: The Way Out Is Up

that have been proposed in approximately 25 years.

• Worsening—For that long, public transportation has been working up to becoming public problem number one. Nearly \$1-million has been spent on 45 separate reports, surveys, and engineering studies, but things have got steadily worse instead of better.

The tremendous suburban expansion

with its outpouring of automobiles has all but choked the once-broad boulevards. The county is building freeways just as fast as the gas tax money allows. But just as soon as a new section opens up, cars pour in as if they were lined up waiting for the snip of the tape: In 90 days the freeway is nearly one-third overloaded. Up to now the road-building machines have managed to keep one



### short order or FULL COURSE

We can meet your most exacting requirements for custom quality engine bearings in small runs or mass-production quantities.

Our exacting production techniques have been developed over the years to cope with today's fluctuating demands for automotive, tractor and industrial engines.

When you specify our engine bearings you gain the "know-how" of more than 25 years of precision experience in the manufacture of the finest engine bearings.

DETROIT
ALUMINUM & BRASS
CORPORATION
DETROIT 11, MICHIGAN

BUSINESS WEEK . May 17, 1952

h

# This sale can be made









# who has a need you can fill



That all-important first step in every sale is the one Dodge Reports take for you! This 60-year-old construction-news service tells construction marketing men wbo and wbere their prospects are, wbat they're going to build and wben they should start to sell them.

Dodge Reports cover all types of new construction in the 37 states East of the Rockies. They save valuable time for you and your salesmen . . . eliminate beating the bushes and chasing down rumors . . . Dodge Reports provide more opportunities for doing business than you can get in any other way . . . point out more new prospects coming into the market . . . show up more opportunities for profitable contacts among the people you already know.

Dodge field men — more than 900 strong — continually comb the construction market—your market—for detailed information about what is coming up—being planned—out for bids—who got the contracts. This timely and vital information is mailed to Dodge users every day. Dodge Reports Service today takes this first sales step for most of the leading firms and salesmen in construction. It can for you. Write today for free book on Dodge Reports.



### DODGE REPORTS

Dept. BW-5,119 W. 40th St., New York 18, N. Y. Timely, accurate, comprehensive construction nesse service THE PERST STEP IN EVERY SALE







### COMMON STOCK

The Directors of Chrysler Corporation have declared a dividend of one dollar and fifty cents (\$1.50) per share on the autstanding common stock, payable June 12, 1952 to stockholders of record at the close of business May 13, 1952.

B. E. HUTCHINSON Chairman, Finance Committee

You advertise in Business Week when you want to influence management men

# "... Public transportation slipped quietly into a back seat ..."

TRANSIT PROBLEM storts on p. 134

jump ahead. But what about tomorrow? The prospect—unless something drastic is done with public transit—is giving the area's citizens the shakes.

• Share the Blame—The Angelenos have themselves to blame for part of the trouble; the rest is purely geographic. Since the war the average Los Angeles citizen has sniffed at public transportation, preferring to commute by car. He bought autos so fast that a record 2-million cars are now registered in the metropolitan area, one for every two people. Public transportation slipped quietly into a back seat, bus and rail lines slowed down to a walk.

That's where geography comes in. Los Angeles is the most spread-out city in the world. Buildings are kept down to 13 stories because of earthquake threat, and the area is dedicated to the single-family dwelling. So you have a population of 4.2-million people sprawled over 452 sq. mi. Add to that the city's peculiar layout. Broad boulevards from the beach cities and western suburbs bottleneck when they start funneling their loads through the narrow streets of the downtown district.

• Overloaded—The biggest bottleneck stems from two suburbs: fast-growing San Fernando Valley and Pasadena. San Fernando Valley expects to double its 500,000 population in 10 years. Already, the Cahuenga Pass freeway to the valley is the most heavily traveled stretch in the land. To make matters worse, Pacific Electric, which has taken a financial beating on its passenger service for years, is petitioning to abandon its last rail lines to the valley and convert to buses. It will probably win on a hardship plea.

The Arroyo Seco freeway, which serves Pasadena, has been sorely overloaded for years. Rail lines there were

dug up years ago.

No Solution—Pacific Electric has been replacing rail lines with bus service as fast as the State Public Utilities Commission will allow. But buses are no solution—without the freeways to run on. And if present freeway plans have to wait for gas tax funds to pay for them, it will be 1985 before the roads needed now are finished. Besides, the cost of freeways is frightening—\$5-million a mi. in land acquisition alone.

These are the reasons more and more people think Los Angeles can never have an efficient mass-transportation system unless it gets off the ground.

• Bidding-Three overhead systems have thrown their hats into the ring:



# NEW PRODUCT DESIGNS DEMAND NEW MACHINING METHODS

This New Britain Automatic developed for contour facing jet compressor wheels

AUTOMATIC BAR AND CHUCKING MACHINES • PRECISION BORING MACHINES
LUCAS HORIZONTAL BORING, DRILLING AND MILLING MACHINES





# Tips on Better AIR CONDITIONING

# Choose the Cabinet Unit **DESIGNED for your LAYOUT**



INTO LOW HEAD SPACE Above is a "Buffalo" Model "PCW" Cabinet which heats, cools, humidifies and washes the air, as desired, It is a complete air conditioning unit with preheat coil, water spary chamber, cooling coil, eliminator section, tank, reheat coil and blower section . . yet all compactly arranged for extremely low height requirements. This is one of a wide variety of "Buffalo" Cabinets to meet many installation requirements. Any or all air conditioning functions may be had in the different models of "Buffalo" Air Conditioning Cabinets shown on this page.

### VERTICAL MODEL SAVES FLOOR SPACE

Taking very little floor space, the "Buffalo" VPC cabinet provides any desired air comfort function. The flat type Hi-Velocity Filters save additional space. Recently redesigned, "Buffalo" Model "G" Air Conditioning Units have streamlined appearance and standardized parts for flexible combinations convenient to knock down for shipment and easy statembly.



### FLAT SUSPENDED UNIT TAKES NO FLOOR SPACE

Where there is no floor space available, or where there is unused space under a portion of a ceiling. 'Buffalo' Flar Suspended PC Cabinets are ideal. They are easily walled in, for a finished job. Available in capacities from 875 to 22,000 cabic feet of conditioned air per minute.



### CONSTRUCTION FEATURES TO LOOK FOR

Important construction features in an air conditioning unit are: the pump, coils, fans, apray noxales and casing. Buffalo 'mappa, 'Buffalo' mixed-flow, hollow-shaft Fans, 'Buffalo' mixed-flow, hollow-shaft Fans, 'Buffalo' mixed-flow, hollow-shaft Fans, 'Buffalo' Mixed Harris Non-flogging Spray Noxales, Aerofin of the same of the

### First For COMPANY BUFFALO FORGE

DWAY
PUBLISHERS OF PAN ENGINEERING" HANDBOOK BUFFALO, NEW YORK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont. Sales Representatives in all Principal Cities

AIR CLEANING AIR TEMPLAING INDUCED BEAFT LEMAUSTING PRESSURE BLOWING

"... the Transit Authority was something of a victory for San Fernando Valley ..."

TRANSIT PROBLEM starts on p. 134

Monorail, Duorail, and Railplane. All three have made formal presentations to the city and county.

The first to get off the ground was Monorail. Its backers got the California Legislature to set up a Los Angeles Metropolitan Transit Authority to build a suspended monorail system from Van Nuys 44 mi. through Los Angeles to Long Beach.

The system is an up-to-date version of the German monorail opened in the Wupper Valley in 1901, which carried 310-million passengers over a 25-year period without a single fatality.

Cars, which seat 60 passengers and stand 30 more, would travel overhead suspended from a single rail at 38 mi. an hour, twice as fast as bus speeds now.

Monorail estimates the cost will run \$1.5-million a mi. for the whole works -stations, shops, spares, and all.

By doubling average surface speeds, and by saving money on accident claims, Monorail figures it can keep fares low. There are no engineering problems involved, Monorail claims, and there is very little interference with surface right of way: The base for the V-shaped pylons is only five ft. square; pylons would be spaced 70 ft. apart.

· Drawbacks-Setting up the authority to build Monorail would seem to give the green light to Los Angeles' first overhead system. But there are some hitches.

For one thing, what the San Fernando Valley civic leaders who conceived the rapid transit act had in mind was an authority that would cover the whole area and would embrace all forms of public transit. But transportation lobbyists whittled this plan down. The Metropolitan Transit Authority has jurisdiction over only an eight-mi. strip centered on the main channel of the Los Angeles River and including just the single Monorail line and feeder bus lines.

In this limited form, the Authority doesn't have many of the advantages of a countywide authority. For example, a plan modeled on the Port of New York Authority and the San Francisco Bay Bridge Authority would be exempt from taxes and would have a good chance to get a 100% loan from Reconstruction Finance Corp.

· Half the Battle-As it is, the Transit Authority was something of a victory for San Fernando Valley-after a 16-year battle for better transportation. The San Fernando Valley Associated Chambers of Commerce began flirting with

A thousand profit possibilities
IN THESE
COILS
OF

# SuVeneer

CLAD METALS

If you require copper, brass or nickel in your products, **SuVeneer** Clad Metals are made for you! A core of steel comprises 70 to 90% of the total strip thickness, and your solid non-ferrous metal is bonded inseparably to one or both sides of the steel. You get your metal where it counts—the rest is saved for defense! Reach toward better fabrication profits . . , write for the **SuVeneer** Clad Metal facts, today.

Superior Steel

CORPORATION

CARNEGIE, PENNSYLVANIA

"We are saving \$100,000 a year...using

WISCONSIN MOTOR CORPORATION,

WISCONSIN MOTOR CORPORATION OF MILWAUKEE manufactured 36.4% of all carburetor-type internal combustion engines produced in 1950 within this company's horsepower range, except automotive and aircraft. (Based on U. S. Bureau of Census statistics as reported by 41 engine manufacturers.) Above are a few examples of Wisconsin-powered equipment, used throughout the world.

"The outside accounting firm we retain informs us that our National Accounting Machines, which cost \$60,000, are saving us over \$100,000 a year.

"The savings exceed the predictions of these nationally-known auditors and those of the National representatives. All of our accounting department heads confirm these savings, and report stepped-up efficiency.

"Our NCR machines handle our Payroll, Labor Distribution, Quarterly Social Security Reports, Production & Material Control, General Accounting (Receivables, Payables, Aged Account Analysis, etc.) and Order Board Analysis of unfilled orders by Customers, Types of Motors, and by Schedule Dates of Shipments.

"Three days after installation.

our own operators had learned the machines, and the system was functioning smoothly. Obviously, we are well pleased."

H. A. godd

Wisconsin Motor Corporation





# Look! Now they've made...

### a weatherproof, washable window shade!

It's a wonderful all-plastic shade\* made of Naugatuck Chemical's Marvinol\* vinyl resin.

Thanks to Marvinol, this shade is impervious to just about everything that bothers ordinary fabric shades!

Rain or damp salt air won't harm it! Dirt and dust won't cling to it! Smoke, soot, grease, even kiddies' sticky hands won't stain it! And it's completely washable!

These amazing shades of Marvinol resist fading, cracking, tearing, and fire! They're just about the most durable window shades you've ever seen!

Even more amazing, these beautiful shades (available in a variety of colors) actually cost less than fabric shades! Window shades are just one more example of the product improvement made possible by Marvinol vinyl resins. Will plastics improve your product, cut its cost, add to its sales appeal?

Ask Naugatuck Chemical. Our excellent research laboratories will be glad to help you solve old problems, create new products. Write on your company letterhead to the address below.

\*Manufacturers' names on request.

Augatuck Chemical Division of United States Rubber Company
55 ELM STREET, NAUGATUCK, CONNECTICUT
1 Rubber Cl

Branches: Akron • Boston • Charlotte • Chicago • Los Angeles • Memphis • New York • Philadelphia • In Canada: Naugatuck Chemicals, Elmira, Ont.

MARVINOL® vinyl resins • KRALASTIC® styrene copolymers • VIBRIN® polyester resins

Rubber Chemicals
Aromatics
Synthetic Rubber
Agricultural Chemicals
Restaured Bubber

the monorail idea about three years ago. Since then the group has changed its name to the Southern California Monorail & Transit Systems, Inc. It has worked hand in glove with Monorail Engineering & Construction Corp., which was formed in 1947 solely to engineer, contract, and build monorail systems.

• Competition—Monorail's first competitor was the Davino Duorail, an overhead train hanging from two rails instead of one. This, claims inventor Alphonso Davino, gives more stability and speed. Davino is begging for \$500,000 from the city council to build a test line. He figures total cost of a 200-mi. system would be \$146-million.

Soon after Gov. Warren appointed the seven-man Los Angeles Metropolitan Transit Authority, Monorail suddenly got another dazzling competitor
-the Hastings Electric Railplane. This company, headed by John A. Hastings, of New York, is a subsidiary of International Railplane Corp., backed by Axel Wenner-Gren (Servel, Electrolux), the Swedish industrialist-financier with the Midas touch. Wenner-Gren built up vast industrial holdings in Sweden, was worth between \$50-million and \$100-million at the start of World War II. Blacklisted for doing business with the Axis during the war, he was cut off from his Swedish empire and took refuge south of the border, where he is now solidly entrenched in Mexican in-

• Same, But Different—Hastings claims his Duorail equipment will run circles around Monorail. The two-rail construction, says Hastings, will allow speeds up to 60 mi. in the city and 150 in the country. Cars are locked in by top and bottom rails, like an elevator in a shaft.

Like Monorail, Railplane estimates construction cost at \$1.5-million a mile. But the Railplane structure would be made of prestressed concrete beams, which Hastings says would eliminate much of the vibration and noise. The plan has been criticized, though, as interfering too much with surface right of way, since the concrete pylons would need a broad base.

Wants In-Hastings wants the Transit Authority under which Monorail is authorized expanded to include Railplane. He has dished up an elaborate 12-year rapid transit plan for the entire southern California area. The proposed network would link all Los Angeles metropolitan areas and all cities within 100 mi. or so. He estimates cost at \$500-million, but expects it can be raised through revenue bonds and a little judicious real estate promotion.

As Hastings sees it, the Railplaneways would be built by a rapid transit authority. Then he would lease the Railplaneways from the authority and



# Be there... with Zippo!

To catch a man's attention—even when he's off and away on a holiday—give him a Zippo engraved with your company trade-mark. He'll see your company name with every zip—many times a day for years. For Zippo is the lighter that men make sure to carry, wherever they go. That's because Zippo always lights with a zip—even in wind or rain! Yes, wherever your client or prospect is—on business or pleasure—you can be there with Zippo. Send the coupon and see how little it costs.



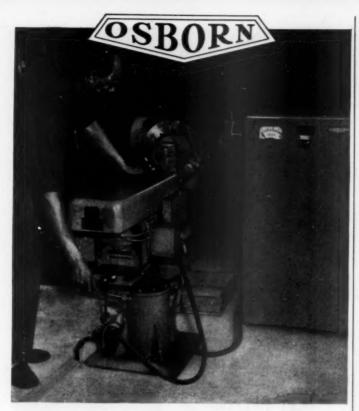


ideal for sales incentives, length of service awards, sales premotion premiums, business anniversary gifts.

FREE mochanical service-for life!

GET YOUR COPY OF FREE BROCHURE!

Zippo Manufacturia Bradford, Pa.	g Company Dept. BW24
Please send FREE Zippo models.	brochure showing
Company	
Address	
CityZo	omeState
Att'n:	Title



# Deburrs gears 15 times faster at the push of a button!

Waut to break a big bottleneck in the production of gears and similar parts? Manufacturers are doing just that with the Osborn Work Holder Brushing Lathe.

In the plant of the White Motor Company, Truck Division, Cleveland, Ohio, this Osborn machine deburrs and finishes gear teeth 1570% faster than the old method. This was done formerly with a portable grinder . . . a tedious operation that took 25 minutes for the 14-inch hypoid gears shown. Now, an operator simply places the gear in the Osborn Work Holder Brushing Lathe, pushes a button and the machine does the job automatically. Floor-to-floor time is only 1½ minutes! Uniformity of finish results in additional time savings in matching and assembly of gears.

It will pay you to investigate this high-speed, high-quality machine for deburring and finishing gears on a production basis. Call your Osborn Brushing Analyst today or write The Osborn Manufacturing Company, Dept. 701, 5401 Hamilton Avenue, Cleveland 14, Ohio.

Osborn Brushell

OSBORN POWER, MAINTENANCE AND PAINT BRUSHES AND FOUNDRY MOLDING MACHINES

operate them. He has proposed a joint partnership between the authority and Railplane Corp. to buy real estate in areas where Railplane would operate. He figures land appreciation would be sizable.

• Still More—Hastings has still another scheme—to put a rail plan in effect even before the first mile of overhead track is built. This contemplates buying up existing urban and interurban lines and lowering fares. Hastings says that lower fares alone can bring present utilization from 16% up to 50%, with a profit left over. Fares under a postalized rate structure start at a nickel. Present minimum is 15¢; it may go to 20¢ if unions get the 35¢ wage increase they are asking for.

 Rights of Way—Except for the Los Angeles River line, both Monorail and Railplane would need additional rights of way. Two proposed ones are the center strips of existing freeways and the present and abandoned Pacific Electric passenger rights of way. In 1947 California made the center strips available to rail transport, but they aren't big enough for conventional rails.

It might not be so easy to get the Pacific Electric passenger rights of way. Many overhead people think PE should part with them for a song, since it is losing money on its passenger service. But the company believes the rights of way are valuable and is sure to put up an argument.

At any rate, PE has made no commitments, although both Monorail and Railplane have worn the carpet smooth around president Oscar Smith's door.

• More Study-Smith says that if a workable areawide system is firmed up, there isn't any reason to believe Pacific Electric won't cooperate. But he thinks the whole question should be mulled over some more. Smith points to the Los Angeles Port Commission as a good example of how these areawide problems should be worked out.

In that hassle, 200 citizens put up \$1,000 each and hired engineers to study the situation completely; as a result, the bond elections for the harbor passed easily.

• Private vs. Public—Smith believes privately owned public transit can no longer make money, therefore may eventually go into public ownership. He favors a plan where the transit lines are publicly owned and leased out to a private operator.

The voters of Los Angeles have always rejected public ownership. But it may fare better this fall. There is talk of tying public ownership into a package with overhead transit on the ballot-first the city would acquire existing transit systems, then shape them up and develop a modern rapid transit system, including overhead transportation.

# What has "stack effect" got to do with the winter operation of good air conditioning?

Tall buildings are like chimneys. In winter, the warm air inside is lighter than the cold air outside. So the warm air rises through the building, pulling in cold air through doors, windows and other openings at the lower levels, and creating a tremendous draft - called "stack effect,"

This "stack effect" plays hob with air conditioning systems which rely on openings in the outside wall of each room, through which a fan draws outside air across the heating coil.

Rooms at the bottom of the building may be cold and drafty as cold outside air rushes in. And rooms at the top of the building may be hot and stuffy as warm air, attempting to escape, blocks the holes designed for ventilation.

On the other hand, the Carrier Conduit Weathermaster System eliminates "stack effect" because it eliminates the need for holes in the wall. Inside the building, sealed against the variations of the weather, climate is always under complete control. Outside air is brought into a central source, then distributed through slim conduits to individual room units throughout the building.

With the Carrier Conduit Weathermaster System, every room gets air that is already heated, cleaned and humidified. "Stack effect" has no effect. Another reason why the owners and managers of most of today's modern buildings call the Carrier Conduit Weathermaster System their best investment.

Write for our booklet, "Conduit Weathermaster System." Carrier Corporation, Syracuse, New York,

Carrier \

air conditioning · refrigeration

for 50 years—the people who know air conditioning best



♠ If you can achieve better control of temperature and humidity in your plant, chances are 9 out of 10 you can improve operating conditions and reduce operating costs. To do it you need an exceptionally effective, and economical insulating material...in a word, FOAMGLAS.

FOAMGLAS is being used successfully for all sorts of structures, both normal and low temperature installations. It is also ideal for insulating piping, valves, fittings and many kinds of process equipment. Its cellular glass construction provides maximum resistance to vapor and other harmful elements. You get constant insulation value with FOAMGLAS throughout a long, cost-free service life.

Find out how FOAMGLAS can help you wall in the weather you want in your plant. Just send the coupon for a sample of the material and copies of our latest booklets. Write today,

P. TSBURGH CORNING CORPORATION . PITTSBURGH 22, PA.



The boot glass insulation is cellular gless. The only cellular glass insulation is FOAMGLAS. This unique meterical is composed of still oir, scaled in minute glass cells. It is light weight, incombustible, vermin-proof. It has unsuually high resistance to moisture, chemicals and many other elements that gauss insulation to deteriorate.

#### DEPENSE BUSINESS

#### CHECKLIST:

#### Defense Regulations

Full text of the materials orders may be obtained from National Production Authority, Washington 25, or from any Dept. of Commerce regional office.

Full texts of the price orders may be had from the Office of Price Stabilization, Washington 25, or from the regional OPS office in your area.

#### Materials Orders

Domestic communications: Given broader assistance to the telephone and telegraph industries in obtaining materials for maintenance, repairs, and operation, and for essential construction. M-77 as amended (May 6).

Cobalt: Redefines cobalt to include compounds produced from ores, metalt. concentrates, and refinery residues M-80, Sched. 2 as amended (May 7).

Flood area relief: Increases allotments of certain steel products that producers are required to deliver to distributors in disaster areas. Also increases amounts of controlled materials that can be procured with priority ratings during Mawand June by retailers in these areas. M-6 A, Dir. 2; M-89, Dir. 1 (May 7).

#### **Pricing Orders**

Wholesale pork: Simplifies the filing requirements in the wholesale pork regulation for multiplant processors of dried pork and specialty pork products. CPR 74, Amdt. 3 (cff. May 13).

California potatoes: Provides specific

California potatoes: Provides specific amounts that potato growers in southern California will use to determine their farm-gate ceiling prices. CPR 113, Rev. 1, SR. 2 (eff. May 14).

Optometric services: Exempts from price control charges made by optometrists for refilling their prescriptions. GOR 14, Amdt. 14 (eff. May 14).

Liquefied petroleum gas: Grants resellers of liquefied petroleum gas (bottle gas) a method of adjusting ceilings to restore the dollars-and-cents margins they got during GCPR base period. CPR 17, SR. 7 (cff. May 12).

Bakery products: Extends the manda-

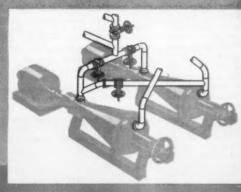
Bakery products: Extends the mandatory effective date of the regulation for frozen and perishable bakery products from May 10 to June 2, 1952. CPR 135, Amdt. 1 (eff. May 12).

Shipbuilders: Temporarily suspends price controls affecting certain sales and deliveries by manufacturers of new ships that are more than 65 ft. long. GOR 9, Amdt. 18 (eff. May 13).

# CRANE VALVE cured production delays

Here's another case where Crane valves stopped serious and costly interruptions of production. Better valve design did the trick. It's another factual demonstration of the greater dependability and lower ultimate cost of Crane valves, duplicated daily in thousands of plants in every industry.

Here are the Facts!



Where installed: In a paper mill making strong and heavy papers for manufacture of bags. Fluid Handled: High consistency pulp stock being piped from pulpers to Jordan machines for refinement.

Trouble Encountered: Valves formerly used, even wide open, would entrap the pulp stock, become inoperative, and shut off flow to machines. Cleaning out the clogged valves and pipe lines was costly in time, labor, and production loss.



Solution and Result: Crane patented Pulp Stock Valves were installed. Clogging wasimmediately stopped. Not a single shutdown for cleanout needed for more than 5 years since Crane valves were learning.

More CRANE VALVES

are used than any other make

CRANE CO. General Offices: 836 S. Michigan Ave., Chicago S. Branches and Wholeselers Serving All Industrial Areas

VALVES . FITTINGS . PIPE . PLUMBING . HEATING

#### How savings have grown in 12 years—and who holds them now

	Share Accounts in Savings & Loan Assns.	Deposits in Mutual Savings Banks	Time Deposition  in  Comm'l Bank	Policy	Bonds	†Grand
Dec. 31,						
1939	.:. \$4,092	\$10,523	\$15,258	\$25,827	\$2,229	\$59,207
1940	4,304	10,658	15,777	27,238	3,207	62,487
1941	4,652	10,532	15,884	28,945	6,212	67,538
1942	4,910	10,664	16,352	30,797	15,050	79,188
1943	5,494	11,738	19,224	33,049	27,363	98,654
1944		13,376	24,074	35,577	40,361	122,033
1945		15,385	30,135	38,667	48,183	142,667
1946		16,869	33,808	41,702	49,776	153,986
1947		17,746	35,249	44,882	52,008	163,054
1948		18,387	35,804	48,158	55,051	171,693
1949		19,273	36,328	51,498	56,707	179,454
1950		20,010	36,503	54,927	58.019	186,421
1951 (Est.)		20,747	37,800	58,400	57,586	193,312
GAINS						
1939-1945	+80.0%	+46.2%	+97.5%	+49.7%	+2,061.6%	+141.0%
	The second second	A CC371/40				+35.5%
1939-1951	+ 292%	+ 97.2%			+ 2,483.5%	+ 226.5%
1946-1951	+118.3%	+34.9%	+25.9%	+51.0%	+19.5%	+35.5

NB All figures are in millions of dollars. "Accumulated savings in life insurance peticles. Fincludes, besides figures given, postal savings deposits.

# Savings and Loan Associations Boom

"The fastest growing financial phenomenon in America."

That's the way some one recently described the booming open-end investment trusts (BW-Feb.9'52,p120). But if the nation's savings and loan associations wanted to be nasty about it, they could enter a very hearty dissent.

Since 1945, the amount of savings invested in their share accounts has risen 125%. Their total resources have likewise soared from less than \$8.8-billion to around \$20-billion. While assets of the open-end funds in the same period did advance 161%, they've moved ap only from around a \$1.3-billion level to some \$3.4-billion. So dollarwise, the postwar asset growth of the S&L's has been over four times as large as that of the much publicized open-end trusts.

• Good Showing—As a receptacle of savings, the associations can't yet boast that they match the size of the nation's mutual savings banks, the thrift departments of the commercial banks, or the life insurance companies. However, the associations have made a spectacular showing in recent years (table, above).

In the 1946-51 period, public invest-

ment in savings and loan shares went up an average 13.9% a year. The runnerup, the life companies, could boast only a 7.1% growth in policy reserves in the same years, mutual savings bank deposits 5.1%, and time deposits of the commercial banks but 3.9%. Far behind, as well, was the similar growth chalked up by U.S. savings bonds. Their total in the same period showed an average annual rise of only some 3%.

• In Dollars, Too—Dollarwise, also, the postwar gain registered by the associations has substantially tapped those of their principal competitors in the race of institutions to capture a lion share of the postwar period's huge savings of individuals. S&L share accounts by the 1951 yearend spiraled \$8.7-billion compared with the \$7.7-billion expansion in commercial banks' time deposits and the \$5.3-billion gain for mutual savings banks.

As a result, the S&L's are no longer the baby they once were in the nation's banking setup. Their share accounts, for example, now amount to some 43% of the commercial banks' time deposits.

Just six years ago the ratio was some-

thing less than 25%. And even more sharply reduced is the edge the mutual savings banks once had over the associations. Back in 1945 S&L share accounts added up to but 48% of the mutual savings bank deposit total. Since, S&L share accounts have advanced to 80%.

• Reasons—Two factors account mainly for the postwar popularity of the savings and loan associations: (1) their heavy advertising and promotion; (2) higher return on savings. (Last year savings and loan dividends ranged from 2½% to 3½% and more in a few instances versus 1½% to 2%, and occasionally a little higher on time deposits in savings and commercial banks.)

Needless to say, what has been happening has not made the commercial and savings banks at all happy. To hold their position in the banking business, they've never had to cope with such aggressive merchandising programs as the S&L's have put on in the postwar period. And they haven't been at all loath at times to attribute rapid growth of the S&L's in large part to "unfair" practices.

• Unfair?—Just three years ago (BW—

• Unfair?—Just three years ago (BW—Apr.9'49,p86), for example, the Ameri-



# How to lick summer fatigue at low cost

Call it heat fag, summer inertia, or what have you—
efficiency suffers, accuracy suffers, work output suffers when the thermometer rockets high in the summer. Don't let it happen to your organization!

Frigidaire Room Air Conditioners are so easy to install! They require no ducts, no special plumbing. Work needn't be interrupted. Used singly, or in multiple, they automatically bring efficient working comfort to surprisingly large areas at low cost. And they permit step-by-step air conditioning—no need to wait until you feel you can air condition all your offices or your entire home.

Try this low-cost way to comfort in your own office or home. See how much better it makes you feel how it boosts morale, increases efficiency, shuts out distracting street noises. Then call your nearest Frigidaire Dealer or Distributor. Ask him to suggest other uses that will increase comfort and productivity. He can show you three models in two sizes—and gladly plan a proper installation using the models that will do the best for you. Look for his name in the Yellow Pages of the phone book, or write Frigidaire Division of General Motors, Dayton 1, Ohio. In Canada, Leaside (Toronto 17), Ontario.

# FRIGIDAIRE 😂

Dependable Air Conditioning and Refrigeration Products for Offices Laboratories - Processing - Precision Assembly - Storage - Plant Lunchrooms - Medical Departments - Water and Liquid Cooling

World's largest builder of railroad air conditioning equipment



Cool, dust-free laboratories—just one of the many benefits Frigidaire Room Air Conditioning permits. And Frigidaire, with its exclusive Automatic Selective Cooling, needs no attention, no dial-fiddling. Just set it forget it. More cooling power automatically cuts in on hotter days!



Used in multiple, Frigidaire Room Air Conditioners are an economic way to cool larger areas, such as general offices, engineering departments. No plumbing or special wiring is required, so work interruption is necessary. A low-priced way to increase productivity—important in periods of high taxes.



Protect your gauge room! Precision manufacturing areas, master gauge rooms...even the most delicate instrument work and checking can be safeguarded from dust, dirt, heat and humidity—conditions which can easily affect fine measurements and operations, and add to manufacturing costs and troubles.

Max Factor, Jr., President of Max Factor Hollywood, tells -











#### NOW SERVING THE PACIFIC NORTHWEST!



# OFFICES IN PRINCIPAL CITIES . GENERAL OFFICES: LOCKHEED AIR TERMINAL, BURBANK &, CALIFORNIA . CABLE: FLYTIGER

"... to many savers ... the S&L's have looked like banks of deposit . . ."

FINANCE starts on p. 148

can Bankers Assn. went so far as to charge publicly (1) that savings and loan organizations had been falsely "trying to give the impression that they are banks of deposit" and (2) that the Federal Home Loan Board, the government agency supervising S&L operations, had likewise been openly trying to mislead the public.

In turn, savings and loan circles were quick to tab this attack as "unfair." It was, they said, "an attempt of the banks to cover up their failure to furnish people with the thrift and

home service they need."

• Resemblance—There's no doubt, however, that to many individual savers in the postwar years the S&L's have looked more and more like banks of deposit. And that goes, too, for

some advisers.

A recent Better Business Bureau pamphlet on "Facts You Should Know About Saving Money," for instance, states that "there is little difference in the setup of a savings bank and a savings association. Both are, as a rule, entirely mutual, have no capital stock . . . and have the same character of assets. The banks call their money 'deposits' and the savings associations 'savings share accounts' or . . . 'savings accounts.' Both types of institutions have as their object the accumulation of savings in bonds and mortgages."

But that's not entirely the case. Actually, money put in a federally chartered savings and loan association is not the same thing as money deposited in a savings or commercial bank. S&L's are not authorized to accept deposits. Money placed in them is definitely capital. And for it, the S&L's issue in effect shares or "share interests"

in the association.

· Less Freedom-Neither does the owner of a S&L "savings account" have quite the same freedom to withdraw his investment as does the owner of a savings or commercial bank savings deposit. He must make written application to the association, asking it to repurchase his shares at their repurchase value. In fact, it is expressly forbidden for an S&L, whose share accounts, like most, are insured by the Federal Savings & Loan Insurance Corp. to "issue any demand securities or advertise or represent that it will pay holders of its securities on demand."

That's not to say that you can't currently withdraw without undue delay any funds you have in S&L's. You can. But you might not always have that privilege. Many associations have the right in times of stress to stop repurchasing share accounts on demand. In case withdrawals are too heavy, they can, for instance, just use one-third of their monthly cash receipts to repay to the extent possible up to a maximum of \$1,000 on each share account presented for repurchase.

• Delay—True, if it was an "insured" association, you would probably get your money back eventually from FSLIC. But you might have a long wait. Legally, the insurance corporation steps in only when an association is in default, and it is not considered "in default" as long as it is using one-third of its cash receipts to repurchase proffered share

accounts.

Some savings banks also have a right to demand 30-day notice, or longer, of contemplated withdrawals to protect themselves in times of trouble. However, if at the end of that time they are not able to handle all withdrawals, they are considered bankrupt and, if insured, the Federal Deposit Insurance Corp. immediately sees to it that all insured deposits are taken eare of.

Because of this, both savings banks and commercial banks with large savings accounts must maintain a large degree of liquidity. True, they do buy mortgages, and the latter very definitely do not represent "a liquid investment." But normally, at least 50% of their resources are represented by their holdings of U. S. government issues (including many readily realizable short-term obligations), various other "legal" corporate issues, and much in the way of straight out-and-out cash held in their vaults.

· Limited-Savings and loan association investments, on the other hand, are limited to government bonds, Federal Home Loan Bank securities, loans against their own shares, and first-mortgage obligations. That's the way it should be, since they are very definitely mortgage banks. To justify their place in the nation's economic setup, in fact, they must be, and very definitely have been in the postwar years, one of the biggest suppliers of mortgage money. That's why they aren't obligated to pay off shareholders on demand. And since long-term mortgages are a far more profitable investment to hold than gobs of cash and short-term securities, this explains why S&L dividends have proved so much more liberal lately than interest payments on commercial and savings bank thrift accounts.

 Long-Term—Obviously, the difference in the setup of the commercial and savings banks and that of the savings and loan associations dictates that the latter should concentrate on the longerterm investment funds of individuals



# WANT TO BYPASS DOWN-TIME DELAYS?

Here's how Acme-Gridley Automatics cut maintenance costs and production interruptions:

- DIRECT, CLOSE-COUPLED CAMMING is a design feature of every Acme-Gridley Multiple Spindle Automatic, proved in use on more than 45,000 machines. Fewer linkages mean fewer adjustments for wear.
- SIMPLIFIED CONSTRUCTION, inherent with close-coupled camming, simplifies preventive maintenance. Fewer parts mean fewer points to check, fewer replacements.
- RUGGED, VIBRATION-FREE FRAME provides a foundation for sustained accuracy. Heavy, patential side slides insure production runs that are always up to original tolerances.
- WIDE, OPEN TOOLING ZONES leave plenty of room for easy, quick inspections and adjustments. These Acme-Gridley features speed up a planned program of preventive maintenance, minimize down-time, safeguard sustained production.

If you're looking for round-the-clock production under the extremes of heavy-duty service, it will pay you to investigate Acme-Gridley Bar and Chucking Automatics — for more good pieces in the pan at the end of the day. Send samples of your work for quotations on a guaranteed production basis.

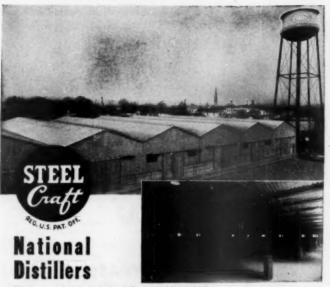
No other source offers a line so complete so much design and tooling experience in multiple and single spindle bar and chucking automatics—more than 45,000 machines built.



# NATIONAL ACME

170 EAST 131st STREET . . . CLEVELAND 8 . OHIO

ACME-GRIDLEY
BAR and CHUCKING AUTOMATICS
built in 1, 4, 6 and 8 spindle styles,
maintain accuracy at the highest
spindle speeds and fastest feeds
modern cutting tools can withstand.



## Earned a "Dividend" with

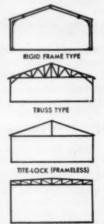
### STEELCRAFT STEEL BUILDINGS

National Distillers Products Corporation insists on quality in anything it buys...
just as it insists on quality in any product it
manufactures. How natural then, for the distiller of such famous brands as Old GrandDad, Old Taylor, Old Crow, Mount Vernon,
Old Overbolt, PM, Old Sunny Brook and
many others to turn to Steelcraft'to solve a
storage problem. Besides getting a building
of topmost quality, National Distillers got
a welcome "dividend"—a definite saving in
construction cost and in erection time.

For maximum economy and efficiency, call in Steelcraft at the earliest possible planning stage. That's when Steelcraft engineers can make proper recommendations, complete suggestions, together with preliminary estimates or definite quotations—BEFORE the job starts.

Regardless of whether you are thinking about a new factory or an addition to your present plant, Steelcraft can help you solve your space problems with low cost, permanent buildings, "custom-engineered" to meet your particular need.

Write today for full information.



SPECIAL TYPE

FREE CATALOG Write today for complete information on Steelcraft Steel Buildings	
STEELCRAFT	
MANUFACTURING COMPANY Execution Child (In Ornoter Cincinnet	

rather than any temporary savings. Because of the aggressive nature of their promotional campaigns, however, much of the new money drifting their way lately doesn't seem to represent funds of that character. Withdrawals during the last four years have ranged between 67.4% and 72% of the funds that the group has been receiving for investment.

And this strongly suggests that much in the way of temporary savings has also been attracted to the higher-thanbank-rate dividends that the group has been paying.

• Overlooked?—The associations have not recognized this trend either by increasing their liquidity. Cash and government bond holdings of the trade, for example, added up to only some 16% of share capital at the 1951 yearend, compared with some 17% the year before and 18% two years earlier.

This liquidity ratio, on first glance might not seem out of line. Authorities, in fact, aren't worried about the S&L's they are supervising if their holdings of cash and governments equal at least 15% of their share liabilities and borrowed money.

That's only the over-all showing, however. And it isn't hard to find many associations whose liquidity ratio falls far under that deemed necessary. In the case of 20 yearend statements that appeared in various publications recently, 55%, or 11, thanks to the heavy borrowings they disclosed, turned up with liquidity ratios ranging from 14.5% downward to only 9.9%.

What has been going on along such lines, moreover, hasn't been overlooked in all official quarters. Last summer (BW-Sep.22'51,p152) the New York State Banking Dept. let it be known that it was "very much disturbed" by the liquidity, surplus position, and borrowings of many state-chartered savings and loan associations. And it added that it was "still more disturbed by the complacence with which this situation is viewed by some managers."

The insurance of share accounts supplied by the FSLIC, the department warned then, is no substitute for adequate reserves. It is to protect shareholders when associations get into trouble through no fault of their own. And "it was not meant," the department added, "to encourage managements to skate on thin ice with the understanding that Uncle Sam would pick up the pieces if the ice broke."

Obviously, one way to increase liquidity and build up reserves would be for the trade generally to retain a larger portion of its earnings than has been its custom in recent years. However, it has been the liberal dividends the trade has been offering to investors that have been one of the main factors responsible for its great postwar growth.



A typical Air Products high purity Oxygen-Nitrogen Generator installation in one of America's larger steel plants.

# High or low purity—small or large quantities made at your plant from air

#### Used Today By Such Companies As:

American Chain & Cable Co., Inc.
Bethlehem Steel Co.
Copperweld Steel Co.
Thomas A. Edison, Inc.
Ford Motor Company
Granite City Steel Co.
Grade Foundries, Inc.
St. Francis Hospital
Libbey-Owens-Ford Glass Co.
National Steel Corp.
(Weirlan Steel Company)

Pettibone Mulliken Corp.

Pittsburgh Steel Foundry Corp.

Ross-Meehan Foundries
and U. S. Armed Services

Many of these installations have been operating constantly for years.

What ere your requirements? Pure, dry oxygen or nitrogen, gas or liquid? Tonnage oxygen or nitrogen, gas or liquid? Some combination of these?

Whatever your needs, versatile Air Products Generators can fulfill them. Today, many installations are in operation with oxygen capacities from 200 cubic feet to 500,000 cubic feet per hour. Additional tonnage oxygen-nitrogen generators are now under construction. Equipment for virtually any capacity, any purity, and any pressure is available.

To find out how you can use the free air to make your own oxygen and nitrogen, talk over your requirements with Air Products Engineers. They have designed, built and put into successful operation more than 400 oxygen-nitrogen generators. This is your assurance that Air Products equipment will (1) incorporate the most advanced cycles for your particular requirements, and (2) will do the job, and do it dependably.

AIR PRODUCTS, INCORPORATED
Dept. H, Box 538, Allentown, Pa. Emmaus 493

Specialists in Equipment for All Low-Temperature Processes

Fir Products GENERATORS

When

the "write" way

is

the "wrong" way

to sign checks...

...When a key executive spends bours signing checks by hand, instead of devoting that valuable time to important management problems.

...When a high-salaried specialist wastes his talents and energy on a job that a machine (the Todd Protectograph Check Signer) could do in a fraction of the time and with infinitely greater safety and control.

A time study survey, just completed, shows how a \$15,000 a year executive, signing 2,000 checks a week, is wasting \$3,000 annually for his firm. And, at the same time, he's distributing 104,000 "samples" of his signature to possible crooks and forgers.

Send now for the Todd Time-Study Chart. And get the full facts about the Todd Signer—the machine that carries a two-year \$10,000 guarantee against counterfeiting of signature plate. Mail the coupon now. No obligation, of course.





FORTRESS-TYPE exterior of San Antonio's First National Bank, built in 1886, reflects ideas the Spaniards brought to Mexico in 16th century.



COUNTINGHOUSE atmosphere is preserved by Victorian furnishings. But indirect ceiling lighting and up-to-date office equipment are strictly 20th century.

# Bank Looks Old, Acts New

When engineer Jack Beretta took over San Antonio's moribund First National Bank after World War II, his first idea was to put up an ultramodern building. But because he wanted to do something different, and because San Antonians are very much attached to their landmarks, Beretta finally came up with another solution. While streamlining the bank's operations, he

retained the old building's Spanish exterior and flavored its age by putting in a luxurious Victorian decor (pictures, above).

Beretta, no Victorian in other ways, hopes to triple assets by introducing new retail banking ideas to San Antonio. For instance, in spite of its Old World appearance, the bank has a drivein teller's window, out back.



# .. Thousands of Miles of **Working Microwave Circuits**

Nearly 50,000 circuit miles of Microwave channels working around the clock carrying voice, teleprint, telemeter, with provisions for full supervisory control.

Point-to-point integration of system-wide communications! That's the picture of Motorola Microwave systems now in and working reliably, economically.

Twice as many Motorola 2-way radios serve police, fire, defense and industrial organizations as all others combined - and now Motorola Microwave has established an early lead with 27 customer-satisfying installations in and working including the first two 1000-mile systems of private-owned industrial Microwave.

#### 27 Systems In and Working - Saving Time and Cost for the Owners -Can Do The Same For You In Your Operation!

- 2-way radio hookup
- Voice
- Teleprinter
- Telemeter
- **Control Readings**

Mid Valley Pipeline Company (1000 miles)

Texas Illinois Natural Gas Pipeline Co. (1000 miles)

nautical Radio, Inc. (eir-ground radio control)

**Hawaiian Air Lines** (a r-ground control)

City of Dayton

(2nd year)

**Panhandle Eastern Pipeline** Company (telemetering)

Pan American Pipeline Co. (with private wire-line tie-in)

Michigan State Police (with remote V.H.F. control)

State of California

# Notorola icrowave

Communication and Electronics Division 4545 AUGUSTA BLVD., CHICAGO 51, ILLINOIS

In Canada: Rogers Majestic Electronics, Ltd., Toronto, Canada

WRITE MOTOROLA MICROWAVE-4545 AUGUSTA BLVD., CHICAGO 51, ILLINOIS



#### Paradi<sup>®</sup>

WOOLENS STAY MOTH-FREE when they're stored in Paradi (Hooker Paradichlorobenzene). Yet the clean-smelling, convenient-size crystals leave no telltale after-aroma. This easy-to-process chemical, sold to makers of sanitary specialties, is also an excellent fungicide and mildew preventive.

# Hooker Chemical

CP-40

New JET PLANE? No, it's a Hooker Chemical—used in waterproofing and fireproofing Army-Navy canvas and other fabrics. CP-40 also helps make paints, and flame-resistant waterresistant plastics that adhere better to metal.



MANUFACTURERS—These two useful chemicals, and many others, are results of Hooker research in chlorine chemistry. A basic source of chlorine, caustic soda and other industrial "building block" chemicals, Hooker is serving 30 industries today. To get a better idea of the importance of chlorine chemicals to you as a manufacturer, send for illustrated booklet, "Story of Hooker Chemicals"

From the Salt of the Earth

#### HOOKER ELECTROCHEMICAL COMPANY

21 FORTY-SEVENTH ST., NIAGARA FALLS, N. Y. New York, N. Y. • Wilmington, Calif. • Tacoma, Wash.

CHLORINE . CAUSTIC SODA . PARADICHLOROBENZENE



### **Cut-Rate Banking**

Indiana bankers, up in arms as small retailers add a check-selling service, want state to squelch the practice.

Indiana bankers are worrying about a new kind of retail service that makes them look bad—besides being competitive. That's the growing practice by small retailers of selling their checks as money orders. Here's how it works:

Suppose you are running a small business—say a family grocery, a small drugstore, or a one-man insurance agency. You have a checking account with a bank. It might make sense for you to sell your customers checks drawn against your account, for a small premium. In effect, you're selling them money orders.

And it might make sense for your customers to buy money orders from you instead of going to the post office, it your store is convenient, or if you charge a lower fee. Sometimes, you might even write checks without a premium, as a service to customers.

• Ready Cash-There's still another reason you might like to perform this service. If you sell your checks, you get cash right away, plus a little extra. But the check probably isn't cleared through your bank for at least a day or two, perhaps much longer if it's mailed to another part of the country or the payee takes his time cashing it. In the meantime, you are getting the free use of the cash.

If you're hard up, you might be tempted to push it further. You might sell checks for more money than you have in your account, if you think you can cover before they come back to the bank

· Reflection on Banks-As can be imagined, this kind of check-kiting doesn't appeal to bankers. In Indiana, the state bankers association is pretty upset about it. What really burns them up is this: Frequently, the money-order retailers don't use the check forms supplied by the bank. They have their checks printed by bank-supply houses in such a form that they look like cashiers' checks. In other words, they look like obligations of the bank, not of the signer of the check. Too often. these checks bounce, and because they look like bank obligations the bank gets blamed. Naturally, even when this business is on the level, it is competitive with bank cashiers' checks.

 Make It Illegal—Of course, any bank can refuse to handle the accounts of people who sell money orders. But they lose customers doing that. They would prefer to have the state banking

# How to hustle without hurrying



## ...get action with Audograph speed

When you make the GRAY AUDOGRAPH your working partner, your office routine speeds up in a way you'll like.

You soundwrite the flow of your business—memos, reports, conferences, letters, phone calls. Your secretary is no longer tied to your desk for tedious dictation. She acts as your executive assistant, transcribes at her best time. Time studies show conversion to Audograph increases office output as much as 30% — creates an extra two hours a day per person!

It's because AUDOGRAPH is engineered with a host of practical features ordinary dictation systems just don't have. To name some: Fewer record changes—the plastic disc records

for a full hour. Simple one-lever control to operate. Illuminated index flashes "correction" and "end of message" to secretary. And, of course, the no-scratch play-back dial.

That's just the beginning of Audo-GRAPH's profit story. Find out more. Mail the coupon. Now!

# AUDOGRAPH sales and service in 180 U.S. cities. See your Classified Telephone Directory under "Dictating Machines." Canada: Northern Electric Co., Ltd. Abroad: Westrex Corp. (Western Electric Co. export affiliate) in 35 countries. Audograph is made by The Gray Manufacturing Company—established 1891—originators of the Telephone Pay Station.



#### the toolhouse of management

**Guards** profits

Protects capital investments

Improves employee and public relations

Your costly investments in equipment, methods and labor cannot produce the profits desired if men and machines are hampered by dust.

Management men who are concerned over shrinking profits have found the Dustube Collector is a "toolhouse" that makes all other tools more efficient. It removes the shackles from production and enables men and machines to produce at top efficiency. Equipment maintenance is reduced. Employee and public relations are improved. And very often, sizeable profits can be salvaged from the materials recovered.

The Dustube increases profits because its simplicity of design reduces the high operating and maintenance costs often encountered with other methods. It traps dust with virtually 100% efficiency, and collected material can be reprocessed without further operations.

Make Dustube your "toolhouse" and save money as these firms have:



Send today for this new Brochure: "Industry Relies on Dustube For Efficient Dust and Fume Control" Socony Point Products Co.—"The Dustube has made our operations so much healthier and cleaner that it is indispensable from the standpoint of improved working conditions."

Worthington Pump Co.—"Our Dustubes are the best investment we have ever made. Their efficiency and cost-saving performance return direct cash savings which will pay us a profit for many years to come."

Tha Oliver Corporation—"Dustubes are the most troublefree units in our whole plant."

American
WHEELABRATOR & EQUIPMENT CORP.
461 S. Byrkit St., Mishawaka Ind.



department supervise the money-order business.

Local bankers are talking over plans to get such a bill passed. Back in 1949 they, with the banking department, sponsored a bill to regulate such "currency exchanges." But the bill was defeated, due to the opposition of the retailers and of Brink's, Inc., the armored car service. Brink's felt the law would interfere with its cashing workers' checks at plants on payday.

#### **FINANCE BRIEFS**



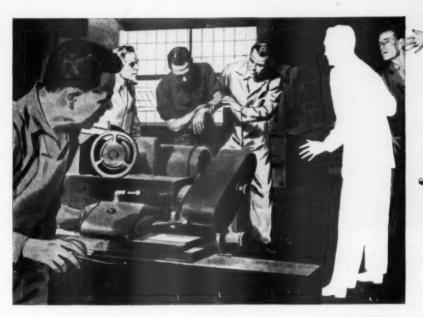
Top analyst: Richard W. Lambourne (picture), of San Francisco's Dodge & Cox, is new president of the National Federation of Financial Analysts Societies. The group held its annual meeting in San Francisco last week.

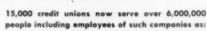
Class I railroads earned \$142-million in the first quarter, compared to \$106-million last year, says the Assn. of American Railroads. However, February was the only month of the quarter that topped the same month last year. The reason: Carriers had labor and weather troubles in February, 1951.

Treasury Dept. started raising new money by selling extra 91-day bills again, after a week's layoff. This will bring the total to about \$1-billion. It's said Secretary Snyder hopes to get \$2-billion of new money from last week's unlimited offering of 24% nonmarketable bonds (BW—May 10'52,p130).

Vote hassle: Interstate Commerce Commission's referendum for Missouri Pacific security holders on a reorganization plan was full of "irregularities," the carrier says. Under the plan, common stockholders would get nothing. Lawyers for the road are asking ICC to void the voting.

# An Employees' Credit Union can help keep you out of this ACCIDENT picture!





Wilson Sporting Goods Company • Johns-Manville Corporation Allis-Chalmers Manufacturing Company • State Farm Mutual Automobile Insurance Company • Eureka Williams Corporation Champion Paper and Fibre Company • Swift & Company Addressograph-Multigraph Corporation

# Many employee accidents result from financial anxiety. Here is bow your employees can avoid them by solving their own money problems

Employees' trouble with their personal finances leads to accidents, inefficiency, wage garnishments, requests for pay advances and many other management headaches. It hurts them, and it hurts business.

A credit union helps employees avert these difficult situations, and become happier and more dependable. As members of a credit union they solve their own money problems through regular, profitable savings and low-cost loans. In addition, they have a choice of several attractive insurance opportunities.

Over the years credit unions have won the enthusiastic endorsement of government, business, labor and church. A credit union will benefit your business by helping your employees. It would function independently and without cost to your company. Your sanction is all that is needed. Your encouragement will help. Start now by clipping the handy "memo" shown at right.

#### GIVE THIS TO YOUR SECRETARY

#### MEMO:

Please remind me to write to Dept. BW-3 Credit Union National asin, Madison, Wis., for free information regarding a credit union for our employeer



# CREDIT UNION NATIONAL ASSOCIATION

MADISON 1, WISCONSIN, U. S. A. . HAMILTON, ONTARIO, CANADA

# Is yours a Problem of Finance?



## Comprehensive Financial Service...



STONE & WEBSTER SECURITIES CORPORATION offers complete financial services to investors and issuers of securities; under-

writing, and distributing at wholesale and retail, corporate, government, and municipal bonds, as well as preferred and common stocks.





STONE & WEBSTER SERVICE COR-PORATION supplies advisory services for the operation and development of public utilities, transportation companies and industries,



STONE & WEBSTER ENGI-NEERING CORPORATION renders complete design and construction services for power and industrial projects and,

through its BADGER PROCESS DIVISION, offers similar facilities to companies in the petroleum, chemical and pharmaceutical fields,

STONE & WEBSTER, INCORPORATED — Through these separate corporations under its general direction, Stone & Webster brings long-established standards of performance to the fields of engineering, business operation, and finance. Singly, or in combination under one roof, these services are available to American industry.

# STONE & WEBSTER, incorporated



STONE & WEBSTER ENGINEERING CORPORATION

STONE & WEBSTER SERVICE CORPORATION

STONE & WEBSTER SECURITIES CORPORATION

90 BROAD STREET . NEW YORK 4, N. Y.

STONE & WEBSTER CANADA LIMITED, 44 KING STREET WEST, TORONTO

## THE MARKETS

	Pre- Korea	1951 - High	1952 Lew	Latest
Butter (lb.)	\$.66	\$.83	\$.66	\$.689
Copper (lb.)	.221/2	.241/2	.241/2	.241/2
Corn (bu.)	1.51	1.98	1.72	.185
Cotton (lb.)	.338	.458	.343	.389
Cottonseed oil (lb.)	.154	.267	.128	.138
Hides (lb.)	.258	.435	.14	.168
Hogs (cwt.)	20.25	23.75	17.05	20.321/2
Lard (lb.)	.109	.20	.11	.112
Lead (lb.)	.111/2	.19	.15	.15
Rubber (lb.)	.282	.75	.281/2*	.29
Steers (cwt.)	29.25	37.871/2	34.00	34.25
Sugar (lb.)	.058	.068	.057	.0611/
Tallow (lb.)	.048	.182	.046	.051
Wheat (bu.)	2.15	2.58	2.28	2.451/2
Wool tops (lb.)	2.00	4.35	1.61	1.891/2

## Prices-Some of Them-Perk Up

There are signs of a pickup in demand in some of the industries that have been having "private depressions." But other markets, like lead, drop in consumer demand.

Prices of basic raw materials seem to be developing two trends as diametrically opposed as two such trends could be:

 A few commodities that had been very tight for a long time—notably lead—now begin to look as though they had lost their last friend.

 Others, sorely afflicted for months, seem a little perkier.

These movements are of the kind that cancel one another out; the broad averages that measure price swings in commodities have been wobbling rather aimlessly for the last couple of weeks. Thus the casual observer easily could overlook divergent trends in individual prices—trends that the purchasing agent sees and sets a good deal of store by.

• Lead Pattern—What has happened to lead (table, above) is perhaps the most conspicuous recent development in the commodity markets. Last year supplies were so tight that metal had to be released from the government's stockpile

to tide industry over. Meanwhile, for-

eign users were bidding so far over our

ceiling price that our imports were vir-

Then things began to happen. We removed our tariff (contingent on the price remaining high). Foreign buyers' supplies of hard currency began to get tighter. Demand in Europe dwindled. Imports started flowing this way.

About that time, needs in this country began to fall off. The price of lead dropped from the ceiling of 19¢ to 18¢, then to 17¢, and this week to 15¢.

The story of lead is not ignored in other metal markets. There is talk that zinc may do something similar. Copper alone, of the nonferrous metals, looks tight for a long time to come. And, outside the nonferrous field, people are wondering when steel will catch up with demand.

 Other Markets—But the gloom may be thicker than is warranted. There are signs of a pickup in demand in some of the industries with "private depressions."

Shoes are doing better, and that has brought a mild rally in hide prices. Wool (which crashed from above \$4 a lb. almost to \$1.60) has had a spirited rally the last two weeks—which may



The automotive industry has a high regard for Clarage air handling and conditioning equipment. Our service to this field dates back nearly 40 years.

Recently to one of the foremost automobile manufacturers — for this company's great new plant in Ohio — we furnished many industrial type fans.

These fans provide plant ventilation, remove dust and fumes, furnish air to various manufacturing processes. They are essential to production and employee morale.

What does American business like about Clarage? . . . first, the resourcefulness of our engineering — and, second, the ability of

97 OF AMERICA'S 100 LARGEST CORPORATIONS

are users of Clarage equipment . . . This wide acceptance denotes the high quality and rollable performance of our products. our equipment to meet your requirements for a long time to come.

How may we serve your company?

We Welcome Your Inquiry!



HEADQUARTERS FOR

AIR HANDLING & CONDITIONING EQUIPMENT

#### **CLARAGE FAN COMPANY**

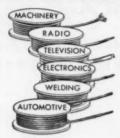
601 Porter St., KALAMAZOO, MICHIGAN
Branch Offices in All Principal Cities
IN CANADA:

Canada Fans, Ltd., 4285 Richlieu St., Montreal

tually shut off.

# FOR PROMPT SERVICE

on your wire and cable needs



# CRESCENT

Your wire and cable requirements are assured of prompt delivery when they are produced by Crescent's complete manufacturing plant.

Our facilities cover all phases of wire making. We draw our own wire, and formulate our own insulation from natural rubber, synthetic rubber and plastics. And at every step from raw materials to final assembly, constant laboratory control guarantees highest quality and performance of Crescent products.

This close integration cuts out intermediate profits and assures efficient service on your orders.

For industrial and electronic applications consult the Carol Cable Division.



herald the long-expected turn in textiles. And hogs have gone up.

There are precautionary notes in the markets for wool and hogs.

The rise in wool was preceded by posting of the government's support prices for the domestic clip. These were equivalent to about \$1.65 a lb. for the better grades of wool in Boston. The market steadied in that area for a couple of weeks before selling dried up.

In the case of hogs, two factors have

helped: (1) The government has been buying cured pork products to bolster prices, and (2) the seasonal decline in slaughter runs has finally appeared three months late.

Grain markets have been largely marking time, waiting on crop news. (Last week's government crop report indicated nearly a billion bushels for winter wheat this year.) And cotton has been beset both by low domestic demand and the possibility of a larger crop.

#### First-Quarter Dividends Hit Record High

Dividends haven't yet been affected by the recent general downtrend of corporate earnings (BW-May3'52,p34). Despite declining profits, they've continued their earlier climb.

First-quarter cash disbursements on its listed commons, the New York Stock Exchange reported last week, moved up to the highest January-March figure on record. Their total: almost \$1.3-billion, or 6.6% above the previous all-time high chalked up last year.

As the Big Board's tabulation below indicates, it was pretty much an across-the-board showing. About 78% of all listed commons paid dividends, compared with 76% in 1951. Only eight of the 27 stock groups showed a drop in dividend payments as against the 10 in that fix last year. And only 26 of 30 companies deferred or omitted common dividends in the period.

The showing had its spotty aspects, too. Only 29% of 1952's dividend payers were able to increase dividends, compared with 44% the year before. And don't overlook the big influence a relatively few stocks have on dividend totals. Even though the oil and gas, utility, chemical, and automotive groups accounted for only 31% of this year's dividend payers, they alone supplied 55% of all stockholder payments. The first two, moreover, virtually accounted for all the gain reported.

Stock Group	No. Issues in Group	No. of Divi- dend Payers	Higher	Same	Reduced	Firs	Total t-Quarter vidends omitted) 1951	% Change 1952 vs. 1951
Aircraft	25	13	7	- 4	2	\$8,132	\$6,403	+27.0%
Amusement		13	1	12		10,736		+ 4.6
Automotive	7.3	59	10	39	13	133,323		- 5.1
Building trade		25	7	17	1	12.064		+ 3.3
Chemical	82	68	25	42	2	134,990		- 1.5
Electrical equipment	22	16	5	11	1	35,781	29,257	+22.3
Farm machinery	7	7	2	4	1	19,817	14,922	+32.8
Pinancial	32	17	8	8	5	16,497	18,725	-11.9
Food products, beverages	70	55	12	37	6	47,674	47,914	- 0.5
Leather, leather products	11	8	**	7	1	5,204	5,004	+ 4.0
Machinery, metals	104	91	29	56	10	43,475	41,248	+ 5.4
Mining	42	27	12	13	2	46,274	41,953	+10.3
Office equipment	10	8	2	6		7,444	7,103	+ 4.8
Paper, publishing	36	29	12	14	3	23,019	20,389	+12.9
Petroleum, natural gas	49	44	25	19	**	220,906	175,322	+26.0
Railroad, railroad equipment	81	51	12	36	3	63,088	58,578	+ 7.7
Real estate	10	6	2	4	**	3,201	3,108	+ 3.0
Retail trade	71	57	10	41	8	65,503	75,902	-13.7
Rubber	9	9	6	3	* *	11,968	8,500	+40.8
Shipbuilding, operating	10	7	2	4	1	3,092	2,884	+ 7.2
Steel, iron	38	31	6	24	1	55,306	53,748	+ 2.9
Textile	44	36	4	23	17	21,135	24,662	-14.3
Tobacco	16	14	2	8	4	22,080	22,124	- 0.2
Utilities	101	88	21	67	1	208,238	182,825	+13.9
U. S. Co.'s operating abroad.	25	11	5	6	1	13,146	12,568	+ 4.6
Poreign companies	18	12	5	5	3	31,519	32,595	- 3.3
Other companies	18	17	4	12	1	9,259	8,776	+ 5.5
Totals1	.057	819	236	522	+87	\$1,272,871	\$1,194,063	+ 6.6%

\* Includes 26 cases where dividends were omitted or deferred.

# MAGNESIUM

and the

#### SALEABILITY





Competition is a great American institution to the consumer—but at times it plays havoc with your sales department. The simple solution, of course, is "build a better mousetrap." And it may be just that simple when you use magnesium.

rt

The many inherent advantages of this ultra-light metal become sales advantages for you. In many cases great savings in weight through increased use of magnesium has made possible numerous design improvements and the addition of extra sales features. Also, consider the psychological effect a lightweight product has over a heavier one—even when the weight is of no functional

importance! With but a few obvious exceptions, anything that has to be moved or lifted will gain consumer acceptance quicker, if it's lighter. Many of the country's more progressive manufacturers have already found that magnesium permits better design, better performance . . . hence, a more saleable product.

So if you are making, or contemplate making anything in which light weight is important—or if you are just bent on beating competition—plan with magnesium. It has already made many products better, more versatile, easier to handle, more profitable to sell . . . it may improve yours.

#### THE DOW CHEMICAL COMPANY

Magnesium Department • Midland, Michigan
New York • Boston • Philadelphia • Atlanta • Cleveland • Detroit
Chicago • St. Louis • Nouston • San Francisco • Los Angeles • Seattle
Down Chemical of Canada, Limited, Toronto, Canada



## LABOR



STEEL UNION head Philip Murray led off by announcing a strike . . .



PRESIDENT Harry Truman promptly "seized" the industry . . .



FEDERAL JUDGE David Pine followed up by ruling the act illegal . . .



APPEALS COURT under Harold Stephens stayed Pine's order. . . .



U. S. SUPREME COURT must now decide a constitutional issue, unless labor dispute gets settled and the case is dropped. Meanwhile, Congress is . . .

# Taking a Second Look at Strikes

Anyone who wanted to watch the nation struggle with the problems raised by the steel dispute needed only to look in three directions this week-instead of the more usual half-dozen.

The mills themselves were operating. The White House, so long the locus of frenzied activities, was completely muted on steel. And the steel corporation offices were doing business without a ruffled feather showing. Elsewhere, however, the steel dispute was getting the full treatment.

• First Hot Spot—The U.S. Supreme Court held a full-dress debate on the constitutional powers of the President. Though the seriousness of the issue was unrelieved by any humor, it did not lack irony. Arguing for sustaining the President's seizure power were government attorneys and attorneys for one branch of organized labor. Arguing against the right of the President to seize were attorneys for the steel companies and attorneys for another branch of organized labor.

The steel union was intent on using the President's controversial seizure power to strengthen its bargaining position vis-a-vis its employers. The three big operating railroad unions found the President's seizure impaired their bargaining power and were intent on having it held illegal.

It will be anywhere from one to four weeks before the High Court rules on the question before it: whether to uphold Judge Pine's injunction against the seizure of the steel industry. In the meantime, there will be new efforts to bring about an agreement between the union and the industry.

 Second Hot Spot-In Philadelphia, meanwhile—the second place where the dispute was very much alive—Philip Murray was presiding over the biennial convention of his United Steelworkers union. Looking drawn and worn and every one of his 66 years, Murray left no doubt in anyone's mind that he was still the undisputed leader of, at least, the 3,000 delegates. An industry hope that the convention would develop some cracks in the union's solid front, that some sentiment would be manifested for taking a more conciliatory line, seemed to be without basis. At midweek, in fact, there was being prepared a constitutional amendment that would give Murray even more authority over the union's affairs. Delegates were supporting it as an answer to the industry notion that Murray was slipping.

Out of Philadelphia nothing came but union militancy. The convention was creating the impression that if the court ordered the government out of steel and the industry refused to settle for WSB's recommendations, there would be another strike immediately.

• Third Hot Spot—This temper makes the third spot where the steel dispute got top attention perhaps the most im-

portant of all. That, of course, is Congress.

The first, flaring reaction in Congress to the President's seizure had died down by this week. Some of the more extreme legislative proposals appeared to be headed for pigeonholes. In both House and Senate, a note of caution was evident. There was a noticeable tendency to put a brake on quick legislative action. Management representatives were quietly urging Congress to go slow; they knew full well that laws cut two ways, that hastily enacted legislation can be worse than none at all.

• Morse Bill—By this week it looked as though any new labor law that did get passed would have careful deliberation beforehand. But that could change overnight. Another strike in steel could stampede Congress. To be ready to offer something if a "political need" to legislate developed, the Administration was working on a bill written originally by Republican Sen. Wayne Morse. As written by Morse and revised by the staff of the Senate Labor Committee, the bill now provides:

 Truman would have the right to see an industry, Congress the right to veto the seizure. The original Morse Bill would have permitted the President to seize only if Congress did not first forbid it in each specific case. The object of the latest revision is to let

the President act quickly.

• This seizure provision would be added to the Taft-Hartley Law as an alternative to the existing 80-day national emergency injunction procedure. Thus, the President would have a choice of seizure or injunction—depending on the situation, and on whether industry



Bunting Cast Bronze Bearings lend themselves readily to simple, clean design—only a straight shaft, a bearing of finely finished bearing bronze, a housing surrounding it and the oil film to insulate against noise and wear.

Bunting Bronze Bearings are available in either of two ways,—

- (a) In standard dimensions and of S.A.E. 660 (Bunting #72) alloy. These are carried in stock by hundreds of Bunting Distributors.
- (b) In special dimensions to your blueprint and in any alloy which you select or we recommend for your particular need. These we make to your order.

Let Bunting engineers work with you on your bearing problems.

The Bunting Brass & Bronze Company, 720 Spencer St.,
Toledo 1, Ohio · Branches in Principal Cities.



or labor is the villain. The original Morse Bill would have amended the Taft-Hartley 80-day injunction.

• The compensation provision in the Morse Bill would be changed to make the amount of compensation to the owner of the seized property uncertain, rather than clear-cut, and also to remove any suggestion of compulsory arbitration. The Morse Bill provides for the government to pay "just compensation" to the property owners, with any additional net income going to the government. In determining just compensation, consideration would be given (1) to the willingness of each side to accept recommendations of an emergency board and (2) to the value of the property in view of the threatened strike.

• Its Effects—The revision of the Morse Bill is designed to prevent a repetition of what happened in steel, and of what caused several Sopreme Court justices to ask why Truman didn't use the Taft-Hartley 80-day injunction if it was necessary to prevent a steel strike.

Truman set up a choice of Taft-Hartley or seizure, and he chose seizure. The Morse Bill would give him that choice by law. It also would have greater acceptance in Congress because it leaves the 80-day injunction provision

• Parallel—At the same time, the House has been working on a similar bill of its own—the Smith Bill. Labor objects to this one because it would set up receivers for unions as well as for industries involved in a strike. The Smith Bill is now pending before the House Armed Services Committee.

· More Troubles-Meanwhile. the chances of the Wage Stabilization Board's losing its role in labor disputes increased as WSB's industry members told the House Labor Committee this function should be removed. Their spokesman was George W. Armstrong, Jr., president of Texas Steel Co., Fort Worth. He said handling disputes impairs WSB's ability to stabilize wages. Last year, when this question was up in Congress in the Lucas amendments, some WSB industry members quietly lobbied against the amendments. Today they are united in favor of climinating WSB's dispute functions.

The Senate Banking Committee has already voted to take disputes-handling out of WSB's authority. It will also report—in its recommended nine-month extension of the Defense Production Act—an amendment to the law that would change the makeup of WSB. Its proposal is to convert the board from a tripartite to an all-public agency. This represents a victory for Charles E. Wilson, former Defense Production Administrator. It also raises the question of whether labor would cooperate with such a board.



CONTROVERSY between John L. Lewis

#### Safer Mines

Senate passes inspection bill—but UMW is taking no chances on Congress. Union plans to bargain for safety.

United Mine Workers last week won what the union hopes will be the first round of a successful fight for enforceable federal mine safety rules. But it isn't taking any chances. Just in case it doesn't get the tight law it wants from Congress, it plans to carry its safety fight into collective bargaining.

 Senate Victory–UMW's victory came in the Senate, which last week passed a strong safety measure sponsored by Sen. Matthew Neely, West Virginia Democrat.

The Neely bill would give the federal government the right to make and enforce mine safety regulations. It would permit federal inspectors to close any mine they consider "an imminent danger to the life or safety of employees." Now only state inspectors can do it.

For over 10 years UMW has fought to have federal inspectors given the right to enforce federal safety rules. When Congress set up the mine inspection program in 1941, lawmakers balked at giving inspectors enforcement powers. They didn't want to step on state mine bureau toes.

After the Centralia (III.) disaster killed 111 miners in 1947, UMW demanded that Congress tighten federal controls over mine safety. It charged "an almost complete breakdown of state safety enforcement." Lawmakers passed a compromise bill, which still left safety enforcement in state hands.

Then came the West Frankfort (Ill.) disaster, which killed 119 last December. That was the last straw for UMW, and for the federal Bureau of Mines as well

Ordinarily, the bureau stayed on the sidelines. But after West Frankfort, it took a stand alongside UMW.

Bills came up in both the Senate and House. UMW got solidly behind the Neely bill in the Senate, described the House proposal as not completely satisfactory.

• Too Little Coverage—UMW's quarrel with the House bill, drafted by Rep. Samuel K. McConnell, Jr., Pennsylvania Republican, is that it doesn't go far enough. It allows federal inspectors to shut down a mine to prevent "imminent disasters"—but only if the threat is due to fire, explosion, flood, or specified mechanical dangers.

In effect, the McConnell bill is in itself a new mine safety code, and federal inspectors would be limited to enforcing it. States would still have sole authority over the general health and welfare of miners, and over unspecified sefety threats.

safety threats.

UMW would settle for the McConnell bill. Meanwhile, though, it is going to demand tighter safety clauses in bargaining contracts—just in case Congress closes up shop before any bill goes through.

• Reopening—As it is now, UMW contracts can be reopened now on 60-day notice. John L. Lewis hasn't taken any public steps yet to begin bargaining, and hasn't said flatly what UMW wants in 1952 contracts. Unofficially, he has hinted that operators will be asked to accept tighter safety regulations—and to agree that union miners may refuse to work any mine that union inspectors consider unsafe, without threat of legal action.

Contract clauses already say they can refuse to enter "unsafe" mines—but Lewis complains that under Taft-Hartley it's dangerous, legally, for them to stay out.

The law lets employers sue a union for damages for any illegal work stoppage. Lewis told Congressional hearings on mine safety bills earlier this year that the danger of a court declaring a safety shutdown to be a strike, barred by contract, is so great that UMW cannot afford to enforce its safety clauses. The Lewis testimony resulted in a sarcastic verbal spat with Sen. Robert A. Taft (picture, above), who defended the T-H bill he co-authored.

### Labor for Truman

ter

deeral ged

ate

ety

11.)

m-

ies

he

it

nd

he

he

at-

p.

go

11-

at

d-

d

11

Union leaders stop short of endorsement—but not far short. Only AFL's Tobin wants to change horses.

Labor's candidate for the Democratic Presidential nomination is still Harry S. Truman—even though he insists he won't accept the Democratic nomination if it is offered to him at the July convention.

• Crystal-Clear—No other conclusion could be drawn from the tub-thumping going on in labor ranks for Truman. Unable to get really enthusiastic about any of the Democratic hopefuls, union leaders and big numbers of their rank and file want Truman to run again.

James Caesar Petrillo, trumpet-blowing head of AFL's American Federation of Musicians, was one of the first on the reelect-Truman bandwagon. Truman is an honorary card holder in Petrillo's union, by virtue of his White House piano plaving.

• Follow Suit-Since January, other union top-notchers have clambered aboard the bandwagon, some rather reluctantly and only because they couldn't find any other acceptable candidate.

Emil Rieve, president of CIO's Testile Workers Union of America, is one of the latest comers. Rieve told convention delegates in Cleveland recently that it "won't be easy to get a better President" than Truman. He added that many in labor, himself included, "underestimated Harry Truman. Now we know better. And I am sure I speak for all of you, and all of our members, when I say that we will miss him."

This is not quite an endorsement for another term—or an invitation to Truman to run again—but close to it. Other union leaders and unions have gone all the way, to urge Truman by letters and convention resolutions to make the race again.

• Change Horses—There's been only one discordant voice—aside from the tentative approval given Sen. Estes Kefauver by AFL's United Textile Workers (BW—May3'52,p123). Of major labor figures, only aging Daniel J. Tobin, president of AFL's Teamsters, has spoken out against another term for Truman.

Tobin has been active as a labor adviser in Democratic politics since the early 1900's. He served several times as head of the Democratic Party's labor division.

Now Tobin believes that the nation needs "a change from old, dyed-inthe-wool professional trickster politi-



Poor Guthrie! A rising load of record keeping and figure work has gotten him down. Don't let this happen to you — depend on the famous Comptometer Adding-Calculating Machines and methods. They'll keep you on your feet—save you time and money, too!

SPEED and ACCURACY in all office figure work! Comptometers feature effortless Floating Touch...instant answer registration ... exclusive 3-way Error Control that eliminates mistakes from faulty stroke. And they're so easy to operate! Anyone who can count on his fingers can operate a Comptometer!

The new DUAL-ACTION Comptemeter gives you the benefits of two adding-calculating machines! Its full 12-column keyboard can be "split" at any point—giving you Two independent keyboards, Two answer registers, Two canceling levers. Operator calculates answers on one side—accumulates results on the other.

Call your nearest Comptometer representative today for demonstrations of the latest Comptometer machines.

#### COMPTOMETER

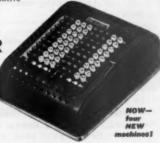
REG. U. S. PAT. OFF.

ADDING-CALCULATING MACHINES

(electric and non-electric models)

Made only by Felt & Tarrant Manufacturing Co., and sold exclusively by its Comptometer Division, 1788 North Paulina St., Chicago 23, Illinois, Offices in all principal cities.





# ls There A Limit?

It is unlikely, when it comes to making almost anything from fine plastics - especially if produced by Prolon Plastics, Division of Pro-phy-lac-tic Brush Company, a famous name in fine plastics since 1844.

Prolon has a highly skilled and experienced staff, used to meeting challenging problems and coming up with superior answers.

One of the latest achievements is a one-shot molding of Plexiglas, designed for diffusing the light of fluorescent lamps, without the checkered glare of old-style diffusers. For Lightolier, Prolon created a 4 foot diffuser, the largest single unit ever injection-molded of Plexiglas. And Prolon can now make such molds in almost any size.

Prolon Plastics, world's largest producer of injection moldings, is currently producing for a wide range of industries and the Armed Forces. Prolon's services are complete, from research and design to molding and assembly.

Prolon has plants at Florence, Massachusetts and Toronto, Canada. Send for free, illustrated booklet describing the range of facilities and services. Write Prolon Plastics A, Division of Pro-phy-lac-tic Brush Co., Florence, Mass. cians in both parties"-a category in which he includes Truman.

• Half-Hearted—Last week Dan Tobin turned critical eyes on the state of Presidential politics. Through The International Teamster, his union's monthly publication, he advised a mil lion union members that Truman may run again, if the Republicans nominate Sen. Taft instead of Gen. Eisenhower. He added: "I personally would vote for him, but I don't know that I would go out of my way to ask my large membership, or the workers of the nation—who have some confidence in me—to take off their coats and go out and work for him just because he was the Democratic nominee."

Tobin believes that, if the Republicans name Eisenhower, Truman will not be a candidate. He thinks that, then, "Eisenhower . . . may sweep the country."

If the Republicans nominate "Taft, or somebody like Taft, Truman is likely to be the Democratic candidate," Tobin says. The Democratic Party will then feel that Truman's support from "the masses of the workers of the nation, organized and unorganized," can make 1952 another Democratic year.

• Jaded-Tobin's political opinions are a little bitter. He feels that he has

been shoved aside in Democratic Party planning during the last few years. But his thinking on party strategy, and on the possibilities of Truman running again, reflects that of many other top union people.

Labor publications show this. A recent popular union cartoon pictured Truman as a David fighting Goliathlike foreign and domestic problems. Others during the steel dispute have pictured him in a slugging bout with industry, with labor looking on.

• Cautious—Meanwhile, top labor people are cautious about Eisenhower. They complain that his "supporters don't even claim to know how Eisenhower stands on domestic issues." Officers of the Oil Workers International Union (CIO) charged last week that Eisenhower's campaign is "being run on the basis of hero worship—and hero worship is dangerous." They urge the union's 78,000 members to "study the issues and the specific, proved abilities of the individual" before backing a candidate.

Nevertheless, Ike can count on some labor support. It will come principally from European theater veterans in union ranks—some of whom have risen to posts of leadership—and from certain AFL organizations.



#### Help on the Way for U.S. Farmers

At least 7,000 workers in Puerto Rico's labor surplus will help fill this year's shortage of agricultural workers on U. S. farms. This group of more than 50 leaving San Juan heads for the New Jersey asparagus fields. Others will work on farms in Pennsylvania. New York, Connecticut, and Massachusetts. Plans for the 7,000 were worked out between Puerto Rico's Labor Dept. and state labor departments of U.S. farm states. Puerto Ricans heading for industrial jobs move north continuously.

#### LABOR BRIEFS

on ng op

re

ed th-

ns.

ve

PF.

ers

11-

Fi-

al

at

111

rn

1C

n.

13

The presidency of International Typographical Union (AFL) is at stake in a mail referendum May 21. Woodruff Randolph, ITU head since 1944, is opposed by C. G. Sparkman, who lost to Randolph in the last election two years ago. Key issue is ITU's plunge into newspaper publishing (BW—Aug. 11'51,p34).

A discount plan for Westinghouse Electric employees (saving them 25%) led to sales totaling \$14.7-million in 1951, for appliances, radios, television sets, and other Westinghouse products. Employees saved \$3.7-million, with Westinghouse bearing \$2.2-million of the cost, and dealers the remainder.

Strike threat is mounting in the copper and brass industry, following WSB's recommendation of an 11¢ raise for employees of nine fabricating companies. United Auto Workers (CIO) says contracts must be signed on WSB's terms. Companies object (BW-Apr.19'52,p55), calling terms an "unjust wage recommendation without regard for individual problems."

Substantial gains in membership, to a new high of 395,000, were reported to Amalgamated Clothing Workers (CIO) convention delegates in Atlantic City this week. Leaders said the men's clothing industry is now 98% unionized.

Fringe costs of 104 member companies of Associated Industries of Cleveland rose from an average 22.51¢ an hour in 1950 to 24.77¢ an hour in 1951, AIC reports. In 1949 the average was 18.34¢. Companies with 1,000 or more employees reported "hidden costs" of 29.36¢ an hour, up 4¢ from 1950.

The Pictures-Cover by Dick Wolters. Cal-Pictures-114, 158; Bill Clinkscales-134 (top), 135; Combine Photos-173 (bot.); Ford News Bureau-59; Hamilton Wright-168; S. T. Henry-118, 119; Eddie Hoff-134 (bot.); Int. News-64, 164 (top lt.); Keystone-170, 173 (top); Minot-77 (bot. lt.); Harvey Patterson & Son-154 (bot.); Robert Phillips-30; Pix Inc.-84, 85; Howard Staples-128, 129; United Press-88, 164 (bot. lt.), 166; Wide World-164 (top ctr., top rt., bot. rt.); Dick Wolters-42, 77 (rt.), 105.



Strange as it may seem, this is about the wey a plate of ordinary steel would look upon impact... at 432 degrees below zero Fahrenheit. Tough, strong, rugged steel becomes brittle and shetters upon impact at liquid helium temperature.

Metals in this temperature range reveal other phenomena: 2010 electrical resistance, extraordinary hardness, etc.

# CRYOGENICS\*

is the study of phenomena at extreme low temperature.

At normal temperatures matter is in ceaseless thermal motion...molecules in random movement. Only when immersed in liquid helium at 452 degrees below zero does matter lose most of its thermal energy...then, matter exhibits curious and fascinating properties.

There are superconductors of electricity, screens against magnetism, new forms of wave motion, and in the case of helium, a "fourth state of matter" which cannot be strictly defined as either a liquid, a solid, or a gas.

Through Cryogenics, it is possible to gain a better understanding of metals, crystals, liquids, and gases . . . of electrical resistance and induction . . . of electrical conductors, semiconductors, and superconductors.

Your request for information about Cryogenic research will keep your Engineering and Research personnel informed about techniques and developments in this new science area.

\*Cryo — Greek kryos meaning icy cold Genics — Greek genes meaning producing

The ADL Collins Helium Cryostet is the basic tool in Cryogenic research. It liquefies helium and maintains a test chamber from normal room temperature to within 2 degrees of Absolute Zero.

Write for Bulletin BW-2



### ARTHUR D. LITTLE, Inc.

MECHANICAL DIVISION 30 MEMORIAL DRIVE, CAMBRIDGE 42, MASS.

## BUSINESS ABROAD



CHANCELLOR ADENAUER, trying to link West Germany with NATO, promises "peace, freedom, and unity with the Chris-

tian Democratic Party." Political enemies retouched his portrait to a Hitler-like expression, gave one more indication that . . .

# Enlisting West Germany Won't Be Easy

BUSINESS WEEK'S foreign editor, now in Paris, has just wound up a month-long tour through West Germany and Berlin. He talked with businessmen and economists, politicians and Allied occupation authorities. This week he cabled:

Linking West Germany with the North Atlantic Treaty Organization is the keystone of U.S. European policy—and it has run into a serious roadblock. Moscow's tricky German tactics, combined with the political and economic climate of the Federal Republic itself, is forcing a slowdown. The West's hope for a strong, unified Europe, with West German participation through the Schuman coal-steel plan and the European Army pool, is in danger.

The timetable for the Bonn government's signature to the "peace contract" with the Allies and the army treaty still stands. Despite disagreements with Chancellor Adenauer's governing coalition, he's expected to sign up by the end of the month. But getting the West German parliament to ratify the agreements is something else again.

U.S. officials in Germany now admit privately that securing ratification—and thus making the treaties operable—will be a long, hazardous process at best. Some British and French authorities on the seene think that the odds are against ratification until new elections are held in Germany—and they aren't due before mid-1953, at the earliest. And even if the Bundestag and the French National Assembly O. K. the agreements, the Soviets can still cause trouble. Working out the European Army scheme is sure to revive the old fears between Paris and Bonn that the Kremlin can exploit.

• Trump Cards—The Russians have held strong cards in the German game all along. They're beginning to play them in earnest now:

Moscow is offering German unification via free elections in the Soviet zone—on the condition that West Germany doesn't hook up with the West. Even if the Russians don't intend to withdraw from East Germany, they're using the offer to delay Western plans.

For example, it's almost certain now that we'll have to agree to Four Power talks on German unity this summer or fall—to prove to West Germans that we're not responsible for keeping their nation divided.

 The Soviets are dangling trade with their fat Eastern markets as bait.
 This strikes a responsive chord with many West German businessmen and traders who feel Eastern business is essential to keep industry fully employed.

• The latest tactic is intimidation and blackmail. Stalin's East German stooges are threatening to build a strong "Peoples Army" if the West rearms, holding up the specter of a bigger, bloodier Korea in Europe. That's effective propaganda in the West, where there's as much horror of a fratricidal war as a direct Soviet attack. It looks, too, as if the Reds will increase the pressure on isolated Berlin as part of the threat tactics (page 179).

If Stalin is really prepared to make

od on his offers of unity plus trade, it's probable that he could pull West

Germany from the Western camp into some kind of neutral position. But even if he's only bluffing, he can count on slowing Western plans. Political and economic conditions in West Germany today will help him do that.

#### I. Politics Heat Up

On the political front, you have to remember that general elections are due next year in West Germany. No political party or individual politician forgets that. None forgets either that most German voters are more interested in reunion with their Eastern brothers than in tieing up with the Western Allies. Politicians also realize that Soviet blandishments put them in a position to ask for better terms from the West.

So far, only the Social Democratic party in West Germany has taken a strong stand—"Unification Before Integration." But the political sledding for Chancellor Adenauer—already bumpy—will be a lot rougher when the Bundestag actually faces ratification of the agreements with the Allies. Most West Germans believe that those agreements will close the door on unity; they would like to put off the decision as long as possible.

Moreover, there's a widespread feeling, despite suspicion of Soviet intentions, that Stalin may be ready to hand back East Germany—with acceptable, though not necessarily ideal, terms.

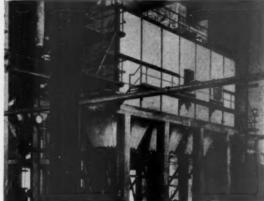
So Adenauer will be lucky if he can hold his three-party coalition together on ratification. Even with elections more than a year away, the Free Democrats and the German Party within the government bloc are kicking over the traces because Adenauer can't get better terms from the West. That coalition split is only a foretaste of Adenauer's coming problems.

#### II. Business Eases

On the economic front, Moscow may have run into some luck this year. Heavy industry is still humming, but the West German economy seems to have reached its plateau late last year.

Textiles are not alone in feeling the pinch from lack of demand. Production of chemicals is now running only 90% of 1951 levels. Due to overstocking by domestic buyers, the pharmaceuticals industry is operating at 75%, the soap industry at 25% of last year's rate.

Some sort of plateau has been reached for Germany's exports, too. Last vear's sales abroad zoomed 75% above 1950's, but West German industrialists see difficulty in holding this level, much



'SF' Electric Precipitator separating pyrite ash from flue gas after a Nicholson-Freeman Furnace.

#### C. E. ROSENBERG, A. R. P.

### Worrying about Fly-Ash Discharge?

The Buell organization of industrial 'dust' men is devoted solely to the design and construction of dust collection and dust recovery equipment that will most efficiently and economically solve your plant's specific Stack Dust problem.

For more than 18 years we have been doing just this for all American industry. Every Buell installation is a custom-designed system, engineered to hold stack dust discharge down to the practical limits which assure new profits, improved product and/or process, better plant-community relations, higher levels of employee morale.

For full information about Buell's 3 basic systems of dust collection, and how one can be applied to the solution of your stack dust problems, write today. Ask for the new informative bulletin titled, "The Collection and Recovery of Industrial Dusts." Do it now. Buell Engineering Co., Dept. 30-E, 70 Pine Street, New York 5, N. Y.



HIGH EFFICIENCY CYCLONES . ELECTRIC PRECIPITATORS
TYPE 'LB' COLLECTORS . LOW DRAFT LOSS COLLECTORS
SPECIAL PURPOSE COLLECTORS . DUST HOPPER VALVES



This industrial 'dust' man can help determine the Fly-Ash or Valuable Dust Recovery System most efficient for youl



difficulty in holding this level, much | ENGINEERED EFFICIENCY IN DUST RECOVERY



#### LIFTS FAST TO LOWER COSTS

At the push of a button, the "Series 700" 'Load Lifter' Electric Hoist lifts a 1000 lb. load a foot a second-boosts defense and civilian output, cuts costs.

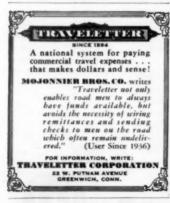
Break production deadlocks. Stop shifting men job-to-job to help lift heavy loads. Use the 'Load Lifter'. Save time and effort-keep workers "fit as a fiddle."

The heavy-duty 'Load Lifter' is rugged. safe-has steel suspension, powerful load and motor brakes and only 24 volts at the push button. Capacities: ½ ton and up; single and two-speed control. Send for Bulletin 399.



MANNING, MAXWELL & MOORE, INC.

Musikegon, Michigan Builders of "Shaw-Box" Cranes, 'Budgit' and 'Lond Lifter Hoists and other lifting specialize, Makers of 'Asheroff' Gauges, 'Hancock' Valves, 'Consolidated' Safety and Relief Valves, and 'American' Industrial Instruments.





less boosting exports now. They point to import curbs in France, Britain, and sterling countries like Australia. The world textile slump has slashed dyestuff exports; the end of the Korean War boom in the U.S. has cut into West German sales of heavy chemicals and steel in the American market.

• Blurred Picture-These developments at home and abroad make West German businessmen wonder what's ahead. All over the country they talk wistfully of their lost markets in the East. Adenauer government officials may say that trade wasn't more than 15% of prewar German exports-and therefore isn't vital. But for certain German industries and cities, the over-all figures are misleading.

Take chemicals. Before the war the industry did 30% of the world's export business in chemicals. It sold fully half of all the chemicals imported by the Soviet Union and the present satellites. Today Germany sells almost no chemicals to Iron Curtain countries, and its slice of world chemical exports has slid to only 8%.

Or look at Hamburg, Germany's biggest port and trading center. Hamburg port is operating at only 50% of its prewar levels. That's largely be-cause business with East Germany and the satellites, Hamburg's hinterland, is merely a trickle.

West German businessmen generally have little confidence that they can find adequate outlets in the Western world. They're bearish on the U.S. marketpartly because of U.S. self-sufficiency. partly because of our tariffs and complex customs procedures. They hope to pick up some in Latin America, but expect tough going in the face of entrenched U.S. business there. They realize that big postwar gains of British exports were made largely at their expense-and won't be given up without

The export problem has two sides. On the one hand, there's a dollar gap. Last year Germans sold \$236-million of goods in the U.S., more than double 1950 sales. But Bonn bought \$648million from us, including lots of wheat, flour, cotton, tobacco, etc. The gap was covered by our economic aid, and will be again this year. But German businessmen figure that U.S. aid won't last much longer. They'd like a guaranteed market-for some \$500-million of defense goods in order to balance their dollar trade. They know this is impossible until Bonn is tied to NATO via the European Army plan.

· Back to Prewar Pattern-Even if the dollar balance is righted. West Germans still have the problem of finding a total market big enough to keep industry busy. The structure of the German economy is right back to the prewar pattern-the same concentration on metalworking industries, the same low wages, the same lack of mass consumption at home. That means the pressure to export will soon be as strong as prewar-perhaps stronger, since there's no Hitler-type rearmament possible.

For the U.S. to remove Germany's export worries, it would have to move on three fronts: (1) Make it easier for Germans to sell in the U.S.; (2) help them get defense orders; and (3) provide capital for undeveloped areas and give Germans an equal opportunity to share in the markets thus created.

West German businessmen thought they could count on these, they might easily forget about unity and Eastern trade. They realize that East and West Germany are not so complimentary as they were prewar; both areas have been working over the last three years to recreate the industries each lost by the partition.

#### No Ceiling on Profits For Business in Brazil

Worried about shrinking profits? Brazilian businessmen aren't. Their business boom continued to pick up speed last year, showering down profits that even surpassed the astounding levels of 1950.

Here are some results of recent studies conducted by Fundação Getulio Vargas, Brazil's counterpart of the U.S. Brookings Institution:

· Analysis of financial reports from 482 representative corporations turned up an average profit, in relation to registered capital plus reserves, of 19.6%, a jump from 17.1% in 1950. Profits in relation to gross income hit 31.9%. compared with 1950's 31.3%. Dividends ran at 14.2% of registered capital -up from 10.3%. That reflects new tax laws that bear down on undistributed profits. The actual volume of profits rose 33.9%.

• Industrial companies (208 were studied) averaged 16.4% profit on capital plus reserves; profits on gross were 29.4%, dividends were 14.1%. The profits on gross sales included some whoppers: The average for 14 metalworking firms was 54%; for nine building materials producers, 43.5%; for 19 drug and chemical outfits, 28.9%.

· Seventeen public service companies showed the usual low rate of return-but it looked mighty healthy by U.S. standards. Profits were 7% of capital and reserves, 19.2% of gross revenues.

· Agriculture, the smallest individual sector with only 18 companies reporting, paid off the best. Profits were a thumping 38.6% of capital and reserves, 43.4% of gross (up from 34.1% in 1950).



## 1951 Festival Bridge Gives Way As...



#### ... 1952 British Trade Fair Begins

Just a few days before the 31st British Industries Fair opened last week for an 11-day run, a prestressed concrete bridge built for 1951's Festival of Britain was torn down. Engineers wanted to find its breaking point. Designed for 35 tons, it finally crumpled after 85 tons of pig iron had been loaded on (top picture).

To onlookers, the bridge-wrecking was almost symbolic. A year ago, at festival time, Britons were in high spirits: Business was looking up, gold and dollar reserves were holding, the Marshall Plan dole was ended.

Today, much of the festival spirit has petered out. The British Industries Fair came just when the nation was struggling to replenish dwindling reserves, to pay its way in a world where British goods are getting harder to sell. The trouble, in part, comes from the rising wall of import restrictions in other countries that are trying to right their own trade balances: The result showed up during BIF's first days, in the disappointing number of overseas buyers.

But if inventiveness and versatility were the only objectives, the fair would







#### 4,000,000 PER DAY

MOST MODERN LABEL PLANT IN AMERICA Complete air conditioning and high speed, automatic equipment give us the edge—BETER quality, FASTER delivery and ATTRACTIVE price or practically say paper fallery and attractive price with the properties of the condition to t





## WHEN YOUR MEN GO TO MALAYA



When your personnel arrive in Malaya, or any non-English-speaking area, will they depend on interpreters in transact your business? Or will they speak the native tongue, thus minimizing confusion and expediting your work?

Hundreds of engineers and specialists are now learning another language under employer sponsorship at Berlits. You can give your representatives the same odvantage.

Classes in any speken tongue, with selected vocabularies for specialists. Instruction in your offices or our studies in 25 cities, or at your field of operations abroad. Clip the coupon to your letterhead for more information.

Bring Your Language Problems to Berlitz

BERLITZ	SCHOOL OF LANGUAGES
630 Fifth Ave., N.Y.C.	CI 6-0110
Name	B.W.

have to be called a huge success. The 1-million sq. ft. of exhibit area—at Earls Court and Olympia, London, and Castle Bromwich, Birmingham—displayed everything from consumer doodads (newfangled costume jewelry, a shirt that won't bunch at the waist,

nylon shoes) to heavy equipment (a plastic airplane wing, huge die-casting machines, a powerful new Vickers tractor—bottom picture, page 173).

The fair cost the British \$28-million, but they hope to get that back in new

business.

### British Industry Eyes U.S. Methods

Program of transatlantic plant visits ends. A lot was learned, a lot remains to be done.

For years smart management men in the U.S. and Britain have been inspecting each other's factories to learn ways of increasing their own output per manhour. Three and a half years ago, with the birth of the Anglo-American Council on Productivity, the exchange of knowhow began to reach all levels of industry from the work force to top management on a big scale.

In London last week, after 66 teams involving 911 people from all levels of British industry had visited the U.S., and three U.S. teams had visited Britain, AACP went out of business. All told, \$2.4-million had been spent, almost two-thirds of it put up by ECA. More than half a million copies of 47 reports—based on the observations and recommendations of each team—have been distributed. Many of the reports were bought by U.S. businessmen interested in getting qualified outside opinion on their own business.

· The Best-What was found by all this looking? Not so much as some had hoped when AACP started. Assessing their own work, AACP members said, "The best practices within U.K. industries compared favorably with the best practices in American industries. It was clear, however, that average productivity was substantially higher in the U.S." It is the medium and small British companies that need productivity lessons-companies that have a greater relative weight in the British economy than does small business in the U.S. Perhaps the biggest byproduct of AACP will be to break the entrenched reluctance of British industry to share production knowhow with its competitors.

Unquestionably, the major results of AACP have been psychological. Phrases like "sense of urgency" and "productivity conscious" in U.S. industry cropped up in almost every report. The real value of the experiment lay in stimulating talks among employers and trade union men to encourage cooperation and exchange of information between firms.

Many British visitors—especially the workers—found a profoundly different industrial atmosphere. They heard some U.S. trade union people talk as enthusiastically as management about boosting productivity. Many reports discussed the need for more effective incentive in Britain. There was some criticism of U.S. working conditions, specifically in coal mining and food processing, but over-all reports reflected admiration and envy of the U.S. workers' lot.

• Best Sellers—The most widely circulated report was on materials handling. Expanded use of conveyers and trucks is being promoted now for the first time in some British industries. Other manufacturers—diesel engines, brass foundries, and electronic tubes—have been taking new interest in continuous flow production lines.

The report on management accounting was another best seller. Iron foundries are trying U. S.-type "cost clinics" to simplify their systems. In Britain, it's a relatively new idea to use accounting as an aid in management planning instead of as a commentary after the fact.

Other reports dealt with increased utilization of machinery, better servicing and simplification of the range of products. That last is needed for efficiency in many British industries, but is hard to achieve because of varied demands of export markets. Drop forgers and steel founders—the first two teams to visit the U.S.—have reported impressive progress at least partly as a result of U.S. experience.

· Overselling-AACP members are unanimous that the experiment was well worth the time and money, but all agree that Britain must take it from here. A vastly different industrial problem in Britain severely limits applicability of U.S. methods. Too much U.S. advice, coupled with sometimes overglowing reports of U.S. practices, could create suspicions of interference and make action more difficult. So far, such suspicions are confined to the far left. The consensus is that, if AACP started British business and labor officials thinking in terms of productivity, it had done as much as it could. Only British management and British union leaders can completely sell the rank and file.

The British Productivity Council,



# 3 word send-off to every man who travels -take it easy!



Even If you work right up to the clock you can still reach your railroad station in plenty of time.

Wherever or whenever you go, usually a handy Pullman train is minutes, not miles away from your office.



You share experiences with interesting people. You quickly shed the tensions of the day in the comfortable lounge car. And if you feel like

it, walk around, stretch your legs. There's plenty of room! Or, you can relax in the privacy of your own Pullman accommodation.



Got ready for refreshing SLEEPthe kind you dream about every

blessed mile. Arrive on time, refreshed, rested, ready for business.

When you go Pullman, your family shares your peace of mind. That's because they know Pullman is the safest way for you to travel.

IT'S GOOD BUSINESS TO

COPYRIGHT 1907, THE PULLMAN COMPANY

gress, Federated British Industries (Britain's NAM), and British Employers Confederation, is now being organized to carry on the work. The government will be asked to put up some money. The council's first job will be to hold a national conference on productivity Several U.S. members of AACP, in-

built around the Trades Union Con-

cluding joint chairman Philip Reed. establish a similar group. Reed wants at least a central office in the U.S. where productivity inquiries from abroad can be handled and where U.S. businessmen can maintain their overseas contacts.

#### BUSINESS ABROAD BRIEFS

Two subs for Peru: Electric Boat Div. of General Dynamics Corp., Groton, Conn., has laid the keels on two streamlined snorkel-type submarines for Peru, with 1954 delivery. Peru bought the first two subs ever made at the Groton plant back in 1926, and Electric Boat helped build a sub base in Peru's Callao harbor

Chilean copper miners are back at work after a 16-day strike that cost Chile \$160,000 a day in revenues. A settlement negotiated by president Gonzalez Videla gives workers 35 pesos a day more, plus benefits.

Russia's on our side, at least in one fight-against locusts, which are threatening crops from Asia to Africa. U. N.'s Food & Agricultural Organization calls it the worst plague in 100 years. U.S., Russia, and India are pitching in with planes, insecticides, and experts. Sorest spots are Iran and Jordan.

An agrarian reform law, proposed by Guatemalan president Jacobo Arbenz, has large landowners and coffee growers worried. One provision is that all plantation workers living on property provided free by owners shall get title to the property; the government will pay owners with 25-year bonds. United Fruit Co., housing some 10,000 on its lands, would get hit hardest.

Mexico invites independent U.S. contractors to help drill 176 new wells for Pemex, the government oil monopoly, with the promise of good operating terms. Says Pemex boss Antonio Bermudez: "Come to Mexico, and see for vourselves."

"Yankees go home" signs scribbled on Paris walls make advertising copy. A Pan Am Airways publicity man paints under the signs: "Via Pan American."

# What do <u>YOU</u> want to protect?



NEW SILVER gets its gleam during manufacture, from buffing, Silver and lint dust creates a slow-burning fire hazard. Full protection is provided by Fenwal Rate-Compensation Actuated DETECT-A-FIRE® Thermostats, installed with an alarm or release system on the dust collectors. They react the instant temperature of surrounding air reaches predetermined danger point.



BOOK BINDING IS REVOLUTIONIZED by NYMO® thread. A Belding-Corticelli product, it is the first new thread construction in 25,000 years. It does away with kinking, raveling... reduces friction... has higher resistance to abrasion. In NYMO thread, strands are fused, not twisted, together. A Fenwal THERMOSWITCH® Thermostat controls processing temperature during fusing.



HAT BRIMS ARE PERFECTLY SHAPED, thanks to an ironing machine that sets the shape of hat brims during manufacture. Fenwal THERMOSWITCH Thermostats help protect quality on these machines by keeping temperature at exact heat needed. These low-cost units are widely used throughout industry.



THIS MODEL SHOP is one of several specialized departments at Fenwal. Here Fenwal engineers translate new ideas and customer requirements into experimental prototypes. Through broad laboratory and engineering facilities, Fenwal engineers develop devices to help protect products and processes, property and people. Bring us your problem. Fenwal, Incorporated, 295 Pleasant Street, Ashland, Mass.



ELECTRIC TEMPERATURE CONTROL
AND DETECTION DEVICES

PROTECTING PRODUCTS AND PROCESSES ... PROPERTY AND PEOPLE

# Cummins Diesels do so many jobs-so much better





... because they're

custom-built to fit the job

Lightweight, high-speed Diesels (50-550 hp) for these and many other uses

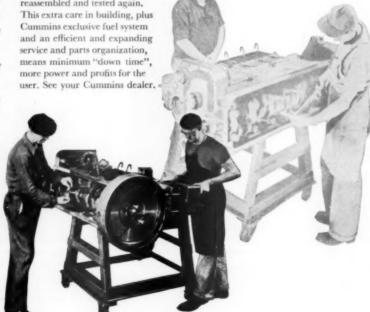
#### ...because they're

BUILTNOTONCE BUTTWICE

Rugged, lightweight, high-speed Cummins Diesels are at work everywhere. Each engine is built twice. It's assembled, run-in tested, disassembled and inspected, then reassembled and tested again. This extra care in building, plus Cummins exclusive fuel system and an efficient and expanding service and parts organization, means minimum "down time". more power and profits for the user. See your Cummins dealer



Diesel power by



CUMMINS ENGINE COMPANY, INC., COLUMBUS, INDIANA Export: Cummins Diesel Export Corporation . Columbus, Indiana, U.S.A. . Cable: Cumdiex

## INTERNATIONAL OUTLOOK

BUSINESS WEEK MAY 17, 1952



The enemy is up to his cold-war tricks again. The sweet reasonableness of the "peace offensive" evidently will fade for a time. Blackmail and intimidation will get a play.

That means trouble in West Germany, Berlin, and Korea. The aim: to block a German alliance with the West (page 170), transform Korea into a political and psychological defeat for the U.S.

But odds are against any final showdown between East and West. An all-out offensive in Korea or a complete military blockade of Berlin could lead to the big war. Stalin knows this as well as we do.

### War on a limited scale could break out in Korea.

London is especially anxious about that. The British are pondering the various commitments they made to Washington in the event of a new offensive by the Reds. Like our other allies, they hate the thought of taking any action—like bombing Manchuria—that might spread the war.

Actually, a major Korean attack by either side isn't likely. Both are dug in deep. Chances of a victory for either side are slim.

### The Communist propaganda war will doubtless be stepped up.

Chinese and North Korean accusations about U. N. "atrocities" are louder than ever; party-liners the world over are echoing the charge. Now we're being accused of lobbing poison gas shells into enemy lines. And the Communists have snapped up the Army's prison camp incident as propaganda material.

### Maximum Red pressure will be directed at West Germans to keep them from signing up with the West.

Threats of a German "civil war" were underlined last weekend by a bitter, Communist-staged riot in Essen. East Germans say they'll build a North Korear-type army if West Germany goes along with the Atlantic treaty nations.

There's a promise of things to come in Berlin: Soviet troops have slapped a partial blockade on our military traffic.

### Isolated and vulnerable, Berlin will play a big role in Soviet strategy.

The Russians are in a lot stronger position than they were during the 1948 blockade, when the West retaliated with a counterblockade and the airlift. They've built rail lines and canals bypassing transport facilities held by the West. There's talk of a new radar system that might jeopardize any Allied airlift.

Though they expect trouble, Western diplomats don't believe the Russians dare go whole-hog with a blockade. Instead, there'll be incidents, harassing of Allied troops and Berliners.

#### The West, too, is stepping up its pressure on West Germany.

We're pushing the Bonn government to sign the "peace contract" and the European Army treaty as soon as possible. Secretary Acheson is off for Germany next week for the ceremonies.

And London, Paris, and Washington have finally answered the Kremlin's Apr. 9 note on German unity. We said we'll agree to all-German elections—with the proper safeguards that they're really free. That's to prove to Germans that we're interested in their eventual reunion.

The Russians have the ball now. And they still could come up with

### INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK MAY 17, 1952 a tempting enough offer on unification to delay ratification of Bonn's treaties with the West.

Britain's Butler is launching the first major appeal for wage restraint since the Tories took over.

The chancellor is worried about new inflation signs. The Amalgamated Engineers are asking £2 more weekly for 800,000 members; miners, railwaymen, and shopworkers want theirs, too.

Butler's job isn't made easier by criticism of Tory policies—the cut in food subsidies, plans to desocialize the trucking industry, and tough credit curbs. That's reflected in the swing to Labor in recent local polls.

Both sides—Labor and Conservative—are unhappy about the government's plan to denationalize trucking.

Some 40,000 trucks will be offered for sale to private business. The £80-million worth of trucks labor bought in 1947 has depreciated (moreover £30-million of that figure was paid for "goodwill"—and that's irretrievable)

So the government wants to slap a tax on new private truckers—to help meet the government's losses and to compensate the nationalized railroads for business lost to the highways.

Laborites are in high dudgeon, promise to renationalize the industry the first chance they get. That will cool buyer interest. Conservatives object strongly to the tax. The liberal Manchester Guardian calls the whole proposal "vague and thoroughly reactionary."

Washington expects Iranian Premier Mossadegh to resign soon. He's disgruntled because the Shah pressured him to sign a military oid agreement with the U.S. He doesn't want to take the rap for Iranian bankruptcy as a result of lost oil income.

There's still no strong Iranian leader to replace Mossadegh. Some U.S. officials think the only hope for keeping Iran with the West may be an army coup engineered by the Shah.

Meantime, the loss of Abadan refinery is plaguing the West again. It was the world's largest single producer of aviation gas. Britain has been leaning on U. S. supplies; now our oil strike has cut British air services.

Look for the U.S. to give in and pay Chile a higher price for copper.

Chileans are expected to unveil their new asking price—likely between 30¢ and 35¢ a lb.—this week or next (we have been paying  $27\frac{1}{2}$ ¢). And we'll probably meet them halfway. Failure to make a deal could cut into our stockpiles. And it could aggravate an already tight economic and political situation in Chile.

Bolivia's new government (BW-Apr.19'52,p158) appears ready to nationalize the country's foreign-owned tin mines.

A commission was formed this week to study ways and means of taking over the mines owned by the Patino, Hochschild, and Aramayo combines. It's to be a "complete legal expropriation," with compensation for the owners. The commission is to report within 120 days.

Meantime, there are rumors that the Soviet may be fishing in troubled Bolivian waters. The La Paz government is supposed to have received a Red bid to buy tin at 10% above world market prices.

## Only STEEL can do so many jobs so well







WIND SLOTS. Complex design problems were encountered in the construction of the Tacoma Narrows bridge. Due to high winds in the gorge it crosses, terrific pressure would build up under the bridge floor. But this new bridge, replacing the old, has open gratings of U-S-S I-Beam Lok Steel Flooring between the traffic lanes, dissipating unusual wind pressures. These "wind slots" also make the bridge floor easier to keep clean. Only steel can do so many jobs so well.

CHANGING WATER INTO LAND. That's what happened when this Northerly Island Airport was built on Chicago's lake front, only a few minutes from the Loop. By sinking steel sheet piling, made by U. S. Steel, into the lake bottom, and filling the enclosure thus made with sand dredged from the lake, runways were created on which planes can land close to the city's business district.



AERIAL ROCKETS and machine gun bullets like these are but 2 of the thousands of items needed for defense in which steel is a necessity. To help supply the steel for urgent security needs, as well as for countless every day uses, United States Steel has steadily expanded its capacity . . . is even now spending its second billion dollars since World War II to assure more and better steel.

DOUGHNUT PARADI. And no traffic tieups, either . . . because these doughnuts 
travel smoothly and swiftly from their 
oven on a Cyclone Conveyor Belt made by 
U. S. Steel. Conveyor belts of steel are so 
widely used today in manufacturing, processing and handling operations, that they 
are known the world over as a symbol of 
American production efficiency.

FACTS YOU SHOULD KNOW ABOUT STEEL

A lot of steel is used for little things. Typical steel allotments to defense supporting users in the last quarter of 1951:

718 tons of steel for buttons
5100 tons for baby carriages
4500 tons for umbrella frames and canes
1379 tons for maps and dusters



This trade-mark is your guide to quality steel

lister to . . . The Theore Bullé as the Air, presented every Sunday evening by United States Steel. National Breadcasting Company, coast-to-coast network. Consult your newspaper for time and station.

## UNITED STATES STEEL Helping to Build a Better America

AMERICAN BRIDGE. AMERICAN STEEL & WIRE and CYCLONE FENCE. COLUMBIA-GENEVA STEEL. CONSOLIDATED WESTERN STEEL. GERRARD STEEL STRAPPING. NATIONAL TUBE
OIL WELL SUPPLY. TENNESSEE COAL & IRON. UNITED STATES STEEL PRODUCTS. UNITED STATES STEEL SUPPLY. Devided of UNITED STATES STEEL COMPANY, PYTTSBURGER
GUNNISON HOMES, INC. \* UNION SUPPLY COMPANY \* UNITED STATES STEEL EXPORT COMPANY \* UNIVERSAL ATLAS CEMENT COMPANY

## EDUCATION



PIONEER in educational TV, Iowa State College, has telecast educational programs 15 hours a week. Pet program is its "Whole

Town's Talking," which here presents a group of Indians telling the audience the Indian is a person. Now, for other stations . . .

## Educational TV Is Coming-and Soon

If your dear old alma mater, or your old home town puts the arm on you in the next few months for a contribution to educational television, don't be surprised.

Right now it looks as though the educational, noncommercial turtle were going to beat the commercial hare onto the airwaves of the newly unfrozen TV channels. That's despite the fact that the turtle has only one-tenth as much running room as the hare. When the Federal Communications Commission opened up the air to 2,053 potential stations in 1,291 communities, it reserved 242 stations for noncommercial users.

• No Contest—The educational groups have one big advantage. Their stations are theirs for the asking, once they get organized. Commercial applicants have to fight one another for a spot, with the FCC the ultimate judge. Because of this, it's likely to be a long time before any new commercial station actually starts telecasting. But there's a fair chance that St. Louis, quickest off the mark of the educators, will be on the air in three months. There's a mild chance that a dozen noncommercial stations will be in action by yearend.

The educators have problems, though. FCC tied a couple of strings on its offer. One is that if, within a year,

the educators haven't been able to take up their option, the FCC will reconsider its allotments and possibly turn the stations in question over to the commercials. The pay-for-play outfits are particularly avid to capture the 80 very high frequency stations opened to the educators. The other gimmick is that a community station must iaclude any and all educational group's that want in.

 Difficulties—With these two strings helping to knot things up, the educators find themselves faced with a four-way snarl of formidable proportions.

snarl of formidable proportions.

• Getting all cligible groups together puts a mighty strain on individual and collective cantankerousness. Perfectly legitimate differences of approach among religious and other groups are almost as hard to resolve.

• Money must be raised: probably an initial minimum of \$200,000 to get started, with annual operating costs running from \$75,000 up. One school of thought has money as the smallest worry. Educational groups are old hands at raising eash. And FCC may allot a station to educators even before they have raised the necessary money. That would never be done, of course, for the pros.

 The first two troubles gang up to create the third: beating FCC's oneyear deadline. If get-together and money are achieved, the time factor will solve itself.

• That still leaves programming, the biggest worry of all. The afternoon shows aren't bothering anyone. Cynics point out that the captive audience in the schools will have to sit still and take what it gets. If the kids like it, that's icing on the cake. It's evenings where the trouble comes. To do any good, the shows will have to have an audience. To have an audience, educational shows have to cut into such demigods of the ether as Milton Berle. That, all hands agree, will take a bit of doing.

The FCC-and notably Commissioner Frieda Hennock, spearhead of the pro-educational majority—is doing all it can to nudge the communities into getting organized. That's where the one-year factor comes in. FCC is careful to say that at the end of the period it won't necessarily reassign the unused stations to commercial applicants. But, it adds, there will be immense pressure to make it do just that.

• St. Louis—You get the clearest picture of how the educators are reacting to this prodding by looking at St. Louis. That city is nearer to triumph than any other city, but what it has done and what it hopes to do are typical in character—and exceptional only in degree. Boston, Los Angeles, Detroit,



Said Dubious Doug, "T've read a book—it's called A ned For The Night." And now I'd like to check and see if all the facts are right. The author, Rufus Jarman, praises Statler's eight hotels, and I must see myself if Jarman knows whereof he tells!



2 "The book says Statler guest rooms strive for comfort in design. If that means putting folks at ease, they've hit the mark with mine! A friendly modern studio by day, and then at night—a bright and airy bedroom! Mr. Jarman, you were right!



3 "You say 'a bath with every room' began at Statler, too? A new idea that soon caught on, as good ideas will do. The Statler started many trends that are the rule today for giving guests more comfort at the rates they want to pay.



4 "And Statler food, you say, is supervised throughout the chain? You like a dish in Boston, so you order it again in Washington or Buffalo—it's just as luscious there. The same superb ingredientr, and cooked with equal care.



5 "I like the Statler service, too—you're right, it's mighty fine! That helpful, friendly attitude goes right on down the line. You've sold me, Mr. Jarman—every Statler is the best! You can't go wrong at Statler, for you really are a guest!"



STATLER HOTELS: NEW YORK - BOSTON - BUFFALO - DETROIT

CLEVELAND - ST. LOUIS - WASHINGTON

ANOTHER GREAT NEW STATLER . LOS ANGELES
(READY FOR OCCUPANCY SUMMER, 1952)

\*A Bed For The Night, The Story of E. M. Statler and His Remarkable Hotels, by Rufus Jarman. Published by Harper and Brothers, on sale May 21st wherever books are sold. A Literary Guild Selection.

## Let us solve your CHEMICAL FEEDING PROBLEMS

### MULTI-FEED CHEMICAL FEEDERS

Manzel flexibility permits accurate feeding of many different chemicals simultaneously. Chemicals can be pumped into other liquids or test samples drawn from production at regular intervals. Easily synchronized with any process. Supremely accurate proportional feeding. Any number of feeds, any type of drive.



LARGE OR SMALL CAPACITIES

Manzel Chemical Feeders pump from a fraction of a drop to 60 gph per feed ... with insurpassed accuracy and dependability. You eliminate troubles due to guesswork, inaccuracy, or forgetfulness.

Despite their time-tested dependability, Manzel Chemical Reeders are priced much lower than you might expect. They can be individually engineered for most applications. Writs for details today.

Specializing in High Pressure Matering Pumps Since 1878

Manzel

333 Babcock Street Buffalo 10, N. Y.



# "... Last month FCC formally reserved Channel 9 for the educators ..."

EDUCATIONAL TV starts on p. 182

Chicago, Washington, and a lot of others are following along.

St. Louis, like plenty of other cities, first heard about the possibilities of educational TV a year or so ago from Pittsburgh's Mayor David Lawrence. Lawrence's letter interested Mayor Joseph M. Darst of St. Louis Darst promptly appointed a Mayor's Committee on Educational Television, including the heads of Washington University and St. Louis University, and superintendents of the public, Lutheran, and Catholic school systems.

Among the committeemen was a businessman and one-time prize student at the University of Chicago, Raymond H. Wittooff. The 30-year-old manufacturer soon was made chairman, partly because of his energy, partly because he didn't represent any one particular school or sect.

VHF Frequency—Right at the start, the committee began urging FCC to give it Channel 9. For St. Louis as a whole, FCC had reserved four VHF channels and three ultra high frequency channels. Only one was in use pre-freeze—the VHF commercial station KSD-TV. Last month FCC formally reserved Channel 9 for the educators.

While this was cooking, Wittcoff and his associates set out to avoid the four standard pitfalls of educational television.

• Friction Barred—For a starter, the committee resolutely refused to get into interdenominational or factional squabbles. The difficulties of getting together were further eased by the decision that all programs should be made suitable for all groups. This will help in programming, too. Incidentally, when formal application is made for Channel 9, it will probably be done not by the committee but by a permanent, nonprofit corporation set up for the purpose. The committee was politically appointed, and it doesn't want any flavor of politics to taint the eventual project.

• Money—The matter of raising money hasn't been met yet, in a firm way. But nobody seems to be overly worried. Unofficially, it is thought that the TV station will be able to use an FM tower and studios belonging to the Board of Education. Equipment is expected to cost somewhere between \$175,000 and \$250,000.

Wittcoff thinks the money can be raised either from public funds or by private donation. In the first category, he puts school board or university con-



Quality is the theme at Massey-Harris Company . . . in fact, the production line in their tractor plant at Racine, Wisconsin is known as "Quality Avenue".

An important part of "Quality Avenue" are the H-P-M 400-ton capacity Fastraverse Presses shown above producing parts for the Model 44 Massey-Harris Tractor. The triple action press at

the left forms two grille tops in a single operation; a 28" x 30" blank is drawn 11" deep. The double action press at the right produces fenders from a blank 43" x 36", drawn to a depth of 5". Both presses average 16 hours a day, 5 days a week.

The men at Massey-Harris will tell you of the outstanding performance of their H-P-M presses . . . less than 1% scrap loss . . . evidence that companies genuinely conscious of quality in their own product also look for quality in the products they buy.

Yes, we at H-P-M, too, know quality counts . . and that you'll get it in every H-P-M Press

... quality workmanship and materials . . . backed by H-P-M's 75 years of specialized experience in the field of hydraulics.

Invite us in at the planning stage to discuss your production problem, won't you?



### THE HYDRAULIC PRESS MFG. COMPANY

1000 MARION ROAD

or

**82** of

of me. or st

11-

d

ar

to

e-se mly s. d

e

or

e

T

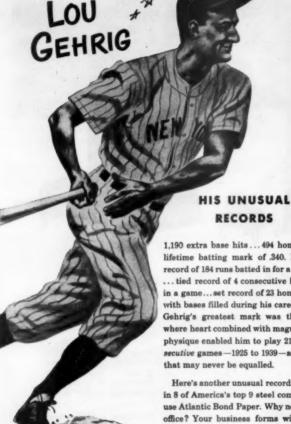
il

of

MOUNT GILEAD, OHIO, U. S. A.

Builders of Prosess for the Metal Working & Processing Industries \* Plastics
Molding Presses \* Die Casting Machines \* Hydraulic Pumps, Valves & Power Units





1,190 extra base hits . . . 494 homers . . . lifetime batting mark of .340. League record of 184 runs batted in for a season . tied record of 4 consecutive homers in a game ... set record of 23 home runs with bases filled during his career. Lou Gehrig's greatest mark was the one where heart combined with magnificent physique enabled him to play 2130 consecutive games-1925 to 1939-a record that may never be equalled.

Here's another unusual record: offices in 8 of America's top 9 steel companies use Atlantic Bond Paper. Why not your office? Your business forms will look better on clean, crisp, distinctive...

ATLANTIC BOND Usiness PAPER ADE BY EASTERN CORPORATION . BANGOR, MAINE Write us on your letterhead for Grantland Rice's complete all-time aseball team, attractively illustrated and suitable for framing.

### ". . . Wittcoff hopes for help from big philanthropic foundations . . ."

EDUCATIONAL TV starts on p. 182

tributions, or something like a locally imposed tax of \$1 or \$2 on receiving sets. Wittcoff is against any federal

As for private gifts, Wittcoff underscores the fact that they are tax free. He also hopes for help from big philanthropic foundations like Ford or Sloan.

The St. Louis committee, thanks to the advanced state of its plans, doesn't foresee any difficulty in beating the deadline, though you can find doubters who see some wishful thinking in Wittcoff's "maybe in three months"

· What to Show?-That leaves programming, the he-coon among prob-The committee figures there won't be any trouble in the afternoons. General-purpose classroom programs will enlist the pick of the teachers.

In the evenings, it's ditterent. The committee thinks the eventual solution will lie in a national cooperative agency, a sort of educational TV network. Thus, each station could concentrate on one, or a few, very high-class programs, which would be available to all the others. This would spare any one station from having to provide all its own material, with inevitable dilution of quality. The central agency would work up a lot of the programs. It would not supervise member stations.

Considerable spadework has been done on the national agency, which has come to be called the St. Louis plan. Last January Mayor Darst called a conference that drew educators from 19 states. Wittcoff told the conferees that what they were discussing "is nothing less than a plan for bringing the nation's greatest teachers and the finest elements of our culture into the living rooms of millions of people."

Crass questions of money were also discussed. It was suggested that each member station might contribute \$15,-000 a year to the national agency. It was pointed out that the local stations could get by with less expensive plant if they were receiving centrally created programs. Wittcoff says that the Ford Foundation has showed keen interest in the network idea. The foundation has already made grants to the Joint Committee on Educational Television, which has been set up by the American Council on Education.

· Vague-As things look now, there's plenty of enthusiasm to carry the network plan to fruition in a not too distant future. Nearly all educators seem



ic

182 illy ing ral eree. nil-OF to he ers in IS"

robere

15.

ns

he on

te all

its

ld It

IS.

is

ed

n-

c to

h

nt

d

st

ıf

The DEPENDABLE Norfolk and Western Railway

# In ITASCA, TEXAS—the newest of the 10 ARABOL PLANTS and WAREHOUSES

-a nation-wide organization serving major users of industrial adhesives



Here is Plant No. 7—the newest unit in Arabol's national network of seven plants and three warehouses.

The rapid growth of manufacturing in the Southwest over the past ten years—in Texas, Louisiana, Oklahoma, Mississippi, Arkansas, New Mexico, Alabama and Florida—is a matter of great importance and pride, both sectionally and to the nation. The size of

We operate on the belief that, for each particular adhesives application, there is one adhesives formula that can serve you best.

You can learn about Arabol Adhesives only by trying them and by evaluating the services of our Technical and Service Staffs. Call upon these services—from the plant or warehouse nearest you. From whichever source,

#### From our Itasca Plant

we are privileged to serve the leaders of Southwest Industry—with adhesives for 1000 end uses. Some of these are for ...

BOOKBINDING BOTTLE LABELING CAN LABELING CARTON SEALING CASE SEALING DRINKING CUPS ENVELOPES
PACKAGE WRAPPING
PAPER BOXES
PAPER CONVERTING
PAPER MILK BOTTLES
PIPE LAGGING

many of the new plants in this area and the wide variety of products manufactured are impressive.

Arabol's Itasca Plant was established this year, specifically to serve this operating area. Fully staffed with experienced workers, this modern, industrial adhesives plant draws upon Arabol's collective 67 years of pioneering—during which time more than 10,000 adhesives formulas have been developed, each meeting a specific need for a special adhesive in some step of a customer's manufacturing, labeling, packaging or shipping.

you will be drawing upon 67 years of pioneering; you will be assured of uniformity in products. In the event of disaster or economic need in one area, you will be served from another plant.

We invite the opportunity to submit samples for you to test in your own plant—under your particular working conditions—for your specific requirements. That is the one kind of testing that assures you of satisfactory results. Your inquiry to Department 60 will bring a prompt response.



to agree that this is the way to get good programs. What's missing is any very concrete notions on what the programs should be like.

Proponents of educational programs that can buck the evening commercial productions toss around lots of words like culture, citizenship, finest things in our thinking. But it's a rare voice that will say: Here's just how we will put on our show, and this is how we'll draw our audience.

This gap in the thinking is natural enough, for educational TV is virtually virgin territory, with few blazes on the

• Iowa State—What blazes there are mostly come from Iowa State College, at Ames. Iowa State got a commercial license back in pre-freeze days. The freeze made this a monopoly, with the station—WOI-TV—devoting 15 hours a week to educational programs and 60 hours to commercial. This happy hybrid status has enabled WOI to pay for its equipment; within two years it expects to be debt free and able to expand its noncommercial time.

WOI's educational programs stress farm information, health, children's shows, a book review panel discussion, homemakers' and science programs. All are locally produced. The Ford Foundation's Fund for Adult Education sees WOI as a laboratory for educational TV and has already made grants of \$180,000 and \$80,000 to advance its work.

Ohio State University, at Columbus, has also been active in education by air. Dr. I. Keith Tyler, director of the work, has these suggestions for TV programming; (1) schoolroom offerings; (2) how-to-do-it programs for adults; (3) refresher courses for professional people; (4) adult citizenship or community programs; (5) offerings of a purely cultural nature.

Ohio State, because of its size, would presumably dominate—and make the major contributions to—the educational station that Columbus hopes to get.

 State Network—The situation would be quite different in cities, like New York or Boston, where there are several educational institutions of roughly even size. Here, give and take would be an essential.

New York State has been working on a somewhat different approach to educational TV. The Board of Regents—boss of the State Education Dept—is aiming at a \$3.5-million educational network that would cover nine-tenths of the state. Annual cost for each of 10 proposed stations is put at around \$150,000. There's some opposition to the plan because of its governmental direction. If rival educational groups should enter the field, FCC will have to decide who is to get the television channels.

## More Empty Seats

ro

ial

ds

gs

'n

ly

ne

re

al

1e

10

d

it

0

d

That's the dreary prospect for U.S. colleges this fall. Reason: bigger draft quota. Result: higher rates.

U.S. colleges face another bleak autumn this year. Against the drab pattern of rising costs and dwindling enrolments, schools now look to lose even more students than they had counted on.

• Draft—The new draft quota is the thing that hurts most. In the year starting July 1, the Defense Dept. expects to call up 610,000 men—an average of about 50,000 a month. The quota has been running at about 20,000 a month through this spring; June is slated to dip to 10,000.

Over-all, the services figure on taking 235,000 more men in fiscal 1953 than they will induct this year. This means just one thing to educators: more vacant seats in classrooms. Colleges lost 10% in enrolment in 1950, another 8% in 1951. The prospect now is for a further 8%-to-10% drop this fall.

• Tuition—Fewer students inevitably mean higher tuition costs. Although many universities are still in the process of making up their budgets, the outlook now is for sizable jumps.

Eastern schools—a good measuring base—will probably cost \$100 to \$150 more a year. Roughly, this means prices will be between \$750 and \$800, compared with a charge of \$600 to \$700 last year.

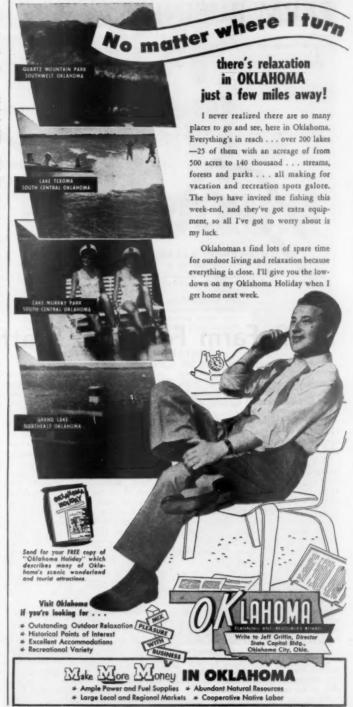
Columbia University, for instance, is going to raise the rates for many of its schools from \$640 to \$790; Brown will go up from \$600 to \$700. Princeton and Yale will boost charges from \$600 to \$750.

Only stable spot is room-and-board costs; they'll hold about even with last year. The parent who pays \$700 to \$800 for tuition can figure on about the same bill for keep. Women's colleges, as usual, will charge slightly higher rates.

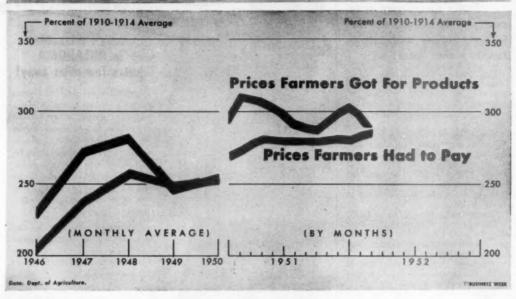
 Scholarships—Scholarships seem likely to show a slight increase. As rates go up, schools are being forced to give a little more.

Still, colleges will be extremely chintzy with anything like full-tuition coverage. The pattern will probably be for \$200to-\$300 grants.

 Expedients—Against this continued financial pinch, schools will be forced to intensify cost cutting. You're likely to see more budget-trimming moves—like the recent one by the University of Rochester to combine the men's and women's campuses in an effort to cut overhead.



## FARM BUSINESS



## 1952 Farm Forecast: Scattered Clouds

With the upswing in recession talk, government business forecasters are keeping a sharp eye on the farmer. Farm sales, costs, and farmers' net income are a key factor in holding up today's high level of economic activity.

What the forecasters see, they don't like. The signs they go by raise the specter of a farm slump in the midst of today's high level of business activity.

The prices of things a farmer buys are going up, while the prices of things he sells are going down (chart). In a mild form, this repeats the pattern of the early 1920's—which touched off a farm depression that didn't end until World War II. So far, however, it's not the 1920's again. Far from it. The farmer's income is going to be high in 1952, even with expected price declines and lessened marketings taken into consideration.

 Income Off—Comparisons of farm and nonfarm income call up the specter of the 1920's. From 1947 to 1951, farm income went down 13%; nonfarm income went up 37%. This sort of thing was a characteristic of the lamented boom that followed World War I.

Already, U.S. Dept. of Agriculture experts are talking about the second-poorest farm year in a decade, based on the amount of goods a farmer will be able to buy with his net income.

No matter what happens, the farmer

will spend a whopping \$21-billion or so just to operate his business—for machinery, fertilizer, fence, and all the other things commercial farming requires. Last year he spent \$21-billion for the same purpose.

 Dip in Net-Whatever jolt he takes this year will come out of what he spends for family living, or saves. Last year his net after paying operating costs was \$14.9-billion. This year it may dip to \$13-billion.

Three months ago nobody was worried about the 1952 farm market. Prices were good, and marketings were rising. It looked as though Agriculture economists were too conservative when —in October, 1951—they forecast 1952 in these terms: prices to stay about the same as 1951, marketings to increase 5%, giving farmers a bigger gross income out of which to pay a 5% rise in operating costs. The conclusion then: net income about the same as the \$14.9-billion of 1951.

• No Silver Lining-Now they have a double worry.

First prices sagged, led by hogs. Fats and oils in general also are staying lower than expected. Then the outlook for big marketings dimmed. So far, marketings have followed the predicted pattern. They've been big enough to run cash receipts up to \$8.7-billion for the first four months of the

year. That's 3% more than the same period last year. But the marketing picture for the rest of the year isn't so good.

USDA expected about a third of the gain in marketings to come from live-stock already on farms. That will probably meet expectations. The department expected another third from better growing conditions than last year's poor season. Except for wheat, that's still a gamble. The remaining third it thought would come from increased plantings. And this is almost certain to be a disappointment.

• Costs Up—While prices have weak-

 Costs Up—While prices have weakened, and the volume of marketings is shrinking, the cost of things a farmer buys both to operate his farm and maintain his family have risen—exactly on schedule. If a steel price increase works its way into equipment, this rise will be bigger than the 5% predicted.

• Below Parity?—This combination of trends has brought farmers down to 100% of parity—which means they can now exchange their crops for about the same amount of goods as in 1910-14 and other selected base periods. A year ago the farmer was doing better at 108% of parity.

The liveliest debate in agricultural economic circles is how far below parity farm income can sink and still maintain a prosperous industry. But farming is a

much more brittle business than it was a generation ago. Its greater dependence on machines, pesticides, and fertilizers -all of which mean high cash outlayputs it in a more vulnerable position than ever before. It doesn't have the big mortgage load of the 1920's-but it is far more dependent on a high cash income to pay the bare operating costs.
• Regional Incomes—Here's how the income picture looks by major areas:

Corn belt. Farmers are gloomy. Every prospect is for a dropping off from last year. Hogs are the big headache. The price of \$16.40 per cwt. (U.S. average) in April meant the profit went out of hogs for many farmers. Cattle feeders are nervous, but haven't been hit so hard yet. They paid high prices for young stock last fall. And the corn they fed to these animals during the winter was low quality, due to the poor 1951 growing season. So cattle in many feed lots didn't put on so much weight as expected. USDA expects a lower return from meat animals this year.

Returns from Midwest staples such as corn, soybeans, and flaxseed are also expected to dip. One of USDA's major disappointments is the indicated failure of corn growers to expand acreage as requested. In March they told USDA they would plant 84-million acres-the same as fast year-instead of 89-million acres wanted by the government.

Winter wheat. It's the brightest prospect for a real money maker. Producers from Texas north into the Dakotas have a crop in the fields estimated to be 46% greater than last year's. The outlook in Kansas-key winter wheat state-is for a yield 86% over 1951. With a support price of at least \$2.17, the free-spending winter wheat producers are assured of a banner year.

Cotton. Receipts from cotton itself are expected to be somewhat higher. The South's soybeans and fruit will probably sell for less than last year, too.

Dairy. Gross income is expected to be higher than 1951. But dairy men are particularly vulnerable to rising costs. · New Price Support Levels-All this means that politicians are worrying, too. Price supports are 90% of parity this year for such staples as wheat, corn, cotton, tobacco, rice, peanuts, butterfat, milk for manufacturing, wool, and soy-beans. The major feed grains are supported at levels that make them comparable in value to corn.

Three bills are being seriously considered in Congress-all devoted to raising price support levels by one device or another. Congress is almost certain to write supports up if it approaches adjournment with a major farm turndown on its hands.

The Practical Coating! Beautifies As It Protects!

Cut your maintenance costs. Apply RUST-OLEUM directly over rusted surfaces without removing all the rust! Just wirebrush and use sharp scrapers to remove rust scale and loose particles, then apply by brush, dip, or spray. Costly sandblasting and chemical pre-cleaning are not usually required. Specify RUST-OLEUM for every rustable metal surface. Prompt delivery from Industrial Distributors in principal cities.

### RUST-OLEUM CORPORATION

2427 Oakton Street, Evanston, Illinois

FREE SURVEY: A RUST-OLEUM specialist will gladly survey your rust problems. He'll make specific tests and recommendations. No cost or obligation. See Sweets for complete catalog IN ALL COLORS ALUMINUM AND WHITE



Look for this label. gust-OLEUMI



MAIL TO: RUST-OLEUM CORPORATION 2427 Oakton Street . Evanston, Illi

Have a Qualified Representative Call Full Details on Free Survey Complete Literature Negrest RUST-OLEUM Source



It's a question of pressing importance to every office manager. The snower by qualified exports—is in a \$2-page manual which we'll be glad to send, fees, on request. Ask for Form 718.

SEND FOR THIS



HERRING · HALL · MARVIN Safe Co. HAMILTON, OHIO

HOW LONG



### World famous makers of high standard

### PERFUME OILS & FLAVORS

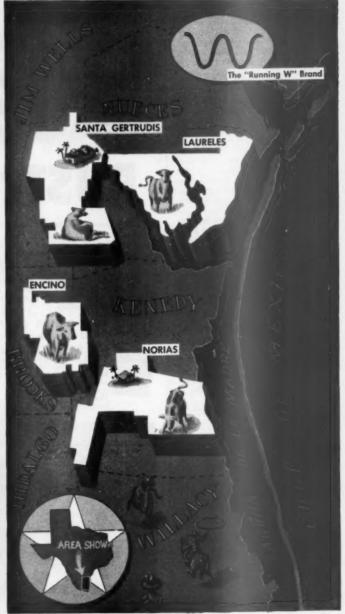
are looking for aggressive agents throughout the United States and Central and South America. Interesting prospects fos active people. Write for full information to

Box 4087, Business Week 520 N. Michigan Ave., Chicago 11, Ill.





## Biggest Ranch Jumps



## THE KING EMPIRE

These four-part 960,000 acres in Texas aren't enough for the fabulous King Ranch. It's branching out to Cuba and Australia, shipping some of its famed Santa Gertrudis cattle. The overseas business won't necessarily mean a cut in Texas operations.

## ome Oceans

The King Ranch, largest in Texas and the world, is hitting the road. And when the famous Running W brand decides to run, it goes a long way. Stock is already being shipped to a 30,000-acre project in Cuba. Next week another contingent of the ranch's famed Santa Gertrudis beef cattle will set sail for Australia.

It's not that the King Ranch finds itself cramped on its 960,000 acres in Texas, and 10,500 in Pennsylvania. Robert J. Kleberg, boss of the vast cattle-building enterprise, sees an evergrowing world market for beef, and he proposes to fill some of it.

• Traveling Beef—The King Ranch has started sending 100 Santa Gertrudis bulls, 700 commercial heifers, and 40 attendant quarterhorses to Cuba. There, King will be a one-fourth partner in a project aimed at helping to make the island an eventual beef exporter.

In Australia, King Ranch will own 85% of a 76,000-acre breeding farm at Risdon. It will also have a quarter interest in a 157,000-acre commercial ranch in Queensland. Australian interests have a half interest, with the remaining quarter going to a subsidiary of Swift & Co., which buys almost all of the King Ranch's U. S. beef.

• Efficiency—In both Cuba and Australia, Kleberg's idea is to boost beef production by better breeding, featuring the Santa Gertrudis straim. Efficient breeding has long been Kleberg's watchword. The ranch's quarterhorses and thoroughbred racers (two Derby winners) are almost as famous as its cattle. For the uninitiate, the quarterhorse is not a side of illegal meat, but a hard-working ranch critter of notable endurance. The name comes from its remarkable speed at short distances like a quarter-mile.

• 20 Years—But the Santa Gertrudis

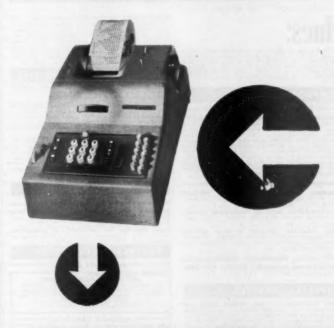
• 20 Years—But the Santa Gertrudis breed of cattle is the crowning achievement of a ranch management that is the surprisingly progressive leader of a highly tradition-bound industry. Twenty years of carefully controlled breeding went into the development of this beast, which looks rather like a mountain of meat on four casters.

It is the proud boast of the King Ranch that Santa Gertrudis steers average about 200 lb. heavier than standard breeds and that the percentage of meat to animal on the hoof is about 3% higher than British-origin animals. The breed is a mixture of three-eighths Brahma—a humpbacked import from India—and five-eighths Shorthorn—a stocky milk-and-beef animal from Europe.

• Big, Scientific, Aware-The conventional idea of cattle ranching as some-



Simplicity of operation is one of the notable features of the Olivetti fully automatic Printing Calculator. Even the most inexperienced operator can use it without special training. The separate keyboard for unique, automatic short-cut multiplication and the 00 and 000 keys are examples of Olivetti simplification. You save in both investment and desk space because the Olivetti combines a calculator and a complete adding-listing machine. The printed tape records permanently every step of your calculations, both simple and complex, making possible instant checking without repeating the operations.



Olivetti Corporation of America, 580 Fifth Avanue, New York 36 Over 300 sales-service stations throughout the United States



when in CINCINNATI I always stop at the

### NETHERLAND or TERRACE

Next time you're in Cincinnati, treat yourself to the allround friendly hospitality of the famous Netherland or Terrace Plaza Hotel.

You'll find perfect service and the most modern accommodations

John G. Horsman General Manager

Owned and operated by Thos. Emery's Sons Inc Cincinnati Ohio

Step Up Production SAVE 50% LABOR-TIME



USE THE ORIGINAL ROURA Dumping HOPPERS

-they pay for themselves

Fitting any standard fork or platform lift truck, thousands of ROURA HOPPERS are in or cold, household or ROUNA HOPPERS are in constant operation handling wet or dry, hot or cold, bulky materials. Simple to operate —only one man is required for distributing and unloading—quicker and easier.

The ROURA HOPPER dumps, rights and locks itself securely by a simple lift of the patented release handle. Sizes ½ to 2 cu. yds. ROURAS can also be designed for flat trucks and in other sizes to meet specifications—can be equipped with special flanges to permit stecking for storage or future distribution. The ROURA will quickly pay for itself many

ROURA IRON WORKS, INC.
1415 Woodland Ave.

Outroit 11 Mich.

Contemplating fereign trade expansion? Our representatives all over the world are ready to assist you in developing on the spot information. Our clients include manufacturers, exporters, engineering concerns, advertising agencies, industrial consultants, and foreign governments. For details, write Overseas Business Services, McGraw-Hill International Corporation, 256 West \$250, New York 56, N. Y.

HOTEL

Published motily—closes 12 days in advance. Rate—35.00 pc line for position confied ods), which is 15.10 pc line for position confied ods), which for bon number. Address bon number replies of a Business Week to office nearest you. NEW YORK 330 W. 53m8 dt. CHICAGO, 580 N. Michipan Arc., SAN FRANCISCO, 68 Part 81.

#### EMPLOYMENT

Selling Opportunity Offered

Jelling Opportunity Offered

Industrial Representative Wanted: Nationally known manufacturer of specialised pumps and spray equipment is looking for representatives in the following areas: New York, Pittsburgh, Memphia, Des Moines, and the Carolinaa. Men with Mill Supply or Equipment Specialty House connections preferred but real entusiasm and natural liking for sales work will count greatly. Prine opportunity with some of the country's best prine of the some of the country of the some of the countr

#### Positions Wanted =

Canadian, 30, S.A., M.S.A., exp. US/CAN mgt sales, import, Food, seeks similar or Asst. to Sen. Exc. Box 427, 42, experienced finance, accounting, know 8 paniels, wants Cuban resistant of the control o

accunting, knows Spanish, wants Cuban residence. Box 4242.

Public Relations: Manager in large industry seeks bilgger publicity career opening. 12 years newspaper, syndicate, maggazine writing exp. national contracts. Box 4220.

Selling Opportunity Wanted -Get Nationwide Distribution Quickly! You make we promote and sell. Box 4231.

#### SPECIAL SERVICES

X-Ray incorporated is your Detroit Office and Laboratory for Quality Control on materials purchased by you in this area. We offer Chemical. Spectrographic, Colorimetric, Physical, Microphotographic, and Radiographic Testing, Phone or Write for complete information on our service. 1932 I Onkland Ave., Highland Park 3, Michigan. Toward Ave., Highland Park 3, Michigan. Toward Chemical Complete in Compl

#### BUSINESS OPPORTUNITIES

Like to Suild Your Own 1/4-7/4HP electric motors? I have dies (Salvage cost) and know-how: available this June. Box 4027. Products Wanted by Machine Shop. Long esteb-lished company specializing in the manufacture

of major precision aircraft parts and assemblies for prime contractors seeks products requiring similar production facilities and skills. Write Box C 292, 175 5 Av, NY 10.

DOX U.FF., 175 5 AV, NY 16.

Tax Money, U. S. oil feeses per eff. Use deductible tax money for filing U. S. Govt. oil leases. Four risk small amt. in Govt. rental filing expense and service fee for possible fortune in Arisona where major company now drilling. Write or wire Box 3856, Phoenix, Arizona.

#### MISCELLANEOUS

- For Sale = Executive Aircraft for sale. Luther Flying Service Co., Johnstown-Cambria County Air-

Johnstown, Pa.

Watches for premiums & promotions.

ct from importer. \$3.30 up. Free Catalog.

sworld, BW, 566 5 Ave, N.Y.

#### BUSINESS SERVICES

- Auto Fleet Leasing

ROLLINS FLEET LEASING

Any number of Cars or Trucks

No capital investment. Better employee relations.

New cars yearly. Savings of thousands of dollars.

Unitinited inleage.

United to the Cart of the Cart of

Industrial Liquidators

Bulk Purchase—Private Sales—Auctions

Rince we are ambidextrous, operating with equal
efficiency under any one of the three basic, yet
our recommending any but the one method best
sulfed to your exact requirements.

Hetz Cantractor, inc., P.O. See STIS, Warren, O.

thing ramshackle, romantic, and punctured by six-shooter fusillades takes a beating at the King Ranch. It's very big business, very scientific, and very aware that the world's exportable beef supply has shrunk about 40% in 10 years.

The Kleberg idea is to do something about that. Thus the ranch is undisturbed by the fact that its overseas ventures are in lands where the price of beef is way below U.S. levels.

· Drought-What's more, Kleberg emphasizes that the overseas jaunts do not mean a cut in U.S. operations. He says the only reason that the Running 's Texas herds are down from 85,000 to 65,000 is the severe drought. Last year King Ranch spent \$1-million on feed for its drought-plagued cattle. In a good year, the ranch sells about 18,000 head, or some 20-million lb. That's the largest single production in the country, yet-so fragmented is the industry-it is less than 0.1% of the total.

In size, the ranch has had its ups and downs. It was founded in 1853, by Richard King and Capt. Mifflin Kenedy. At one time, the pair had 50,000 semi-wild Longhorns gallivanting around 1-million acres. The acreage shrank for a time; in 1935 there was only about half the present land. Way back, the Kenedys withdrew, though they still have ranches adjacent to the four big chunks into which the King Ranch now falls.

The Klebergs came into the picture when Richard King hired the first Robert, a young lawyer who was en-gaged to Alice, King's daughter. When King died, his widow asked

Kleberg to manage the ranch. The era of scientific breeding had begun. Kleberg himself lived till 1932, when his son-the present Robert-took over. Now, at 56, the second Robert is the exceedingly active president and manager of the King Ranch Corp. Any day now, he's off for Australia.

· Grasses-There are whole herds of details to attest the scientific methods of the Klebergs. Special grasses were developed to improve grazing. Deficiencies of phosphorus in the soil were repaired in various ways, including strewing the mineral from planes. To combat the inroads of mesquite, Kleberg has a \$75,000 mechanical monster, a sort of cross between a sabre-toothed mole and a 57-ton tank, that roots out the brush far faster and cheaper than men can do it.

Things are running pretty smoothly, but Kleberg views one fact with sharp alarm: The beef-eating of the average American dropped from 155 lb. a year in 1947, to 138 lb. last year. Mostly, Kleberg blames it on government controls, which annoy him more than drought and mesquite combined.

### ADVERTISERS IN THIS ISSUE

Business Week-May 17, 1952

ADAMS & WESTLAKE CO	DOW CHEM Agency—M EASTERN C
Agency—Henri, Hurs & McDonald, Inc. AIR MAZE COMP. Agency—Hatten, Barton, Durstine & Osborn, Inc. AIR PRODUCTS, INC	Agency—St
Agency—Henri, Hurs & McDonald, Inc. All BAZE CORP.  All BAZE CORP.  ADMINISTRATION CONTROL OF CONTROL  AIR PRODUCTS, INC.  B. Agency—Toma & Gill  ALLEN-BRADLEY CO.  AGENCY—Toma & Gill  ALLEN-BRADLEY CO.  AGENCY—Compton Adv., Inc.  LOUIS ALLIS CO.  LISCONAL ERB BFG. CO.  AGENCY—Compton Adv., Inc.  LOUIS ALLIS CO.  ALLIS-CHALLERS BFG. CO.  AGENCY—Compton Adv., Inc.  LOUIS ALLIS CO.  ALLIS-CHALLERS BFG. CO.  ALLIS-CHALLERS BFG. CO.  ALLIS-CHALLERS BFG. CO.  ALLIS-CHALLERS BFG. CO.  AMERICAN CO.  AMERICAN GAS ASSOCIATED CO.  AGENCY—CONTROL  AMERICAN MAME PLATE & MFG. CO.  AMERICAN STELEGRAPH CO.  AGENCY—SURPHIAN CO.  AMERICAN WEIGHAGE BFG. CO.  AGENCY—TO BRAYES GENERAL BRADEN G.  BERUCHBERT CORP.  SUR COMPANIES  ANACONDA COPPER MINING CO. &  ANACONDA COPPER MINING CO. &  SUR COMPANIES  ANACONDA COPPER MINING CO. &  ANACONDA COPPER MINING CO. &  SUR COMPANIES  ANACONDA COPPER MINING CO. &  ANACONDA COPPER MINING	THE ECLIP
Agency—The Fensholt Co.	Agency—CA ELLIOTT AR Agency—H EMERSON E Agency—W
Agency-Compton Adv., Inc.	EMERSON E
Agency-Hoffman & York, Inc.	THOMAS EN
Agency—Ketchum, MacLeod & Grove, Inc.	Agency—Ro EUREKA SP Agency—H FELT & TAI
Agency—Ketchum, MacLeod & Grove, Inc.	FELT & TAI
AMERICAN NAME PLATE & MFG. CO172 Agency—Geo. J. Cowan	FENWAL, II
Agency—Sutherland-Abbott	Agency—N FENWAL, II Agency—Ja FINNELL & Agency—Jo FLVING TIG
Agency Cunningham & Walsh, Inc.	Agency—H
Agency—The Bayless-Kerr Co.	Agency-J. FOX RIVER
Agency—The Jaqua Co.	FRIDEN CA
ANACONDA COPPER MINING CO. 4 SUB. COMPANIES ANCHOR POST PRIDUCTS. INC. ANCHOR POST PRIDUCTS. INC. ANCHOR POST PRIDUCTS. INC. III. ANCHOR POST PRIDUCTS. INC. ANCHOR POST PRIDUCTS. INC. ANCHOR POST PRIDUCTS. INC. ANGEROW-LIST TO COMPANIES AND ANGEL POST POST POST POST POST POST POST POST	Agency J. FRISCO RAI Agency W FULLER BR
ANCHOR POST PRODUCTS, INC	Agency—W
ARABOL MF 6. CO	Agency—To
ARMSTRONG CORK CO	Agency—Ti GENERAL A (FRIGIE
ASSOCIATION OF AMERICAN RAILROADS123	(FRIGIC
Agency—James Thomas Chirurg Co., Inc.	Agency—Fr GERLINGER Agency—H THE GILBE
Agency-N. W. Ayer & Son, Inc.	Agency-F
Agency—May Adv. Agency	Agency-K
Agency—Hicks & Greist, Inc.	Agency—K THE B. F. 6 Agency—T GOODYEAR (PLIOFI
BUELL ENGINEERING CO. 180. 171 Agenet—Hilbas Griels, Inc. BUFFALO FORGE CO. 138 Agenet—Melvin P. Hall Adv. Agenet, Inc. BUNTING BRASS & BRONZE CO. 165 Agenet—Beson-Beldert, Inc. BURROGENS ADDING MACHINE CO. 55-67 HILD.	(PLIOFI
Agency-Beeson-Reichert, Inc. BURROUGHS ADDING MACHINE CO	Agency—K GRAY MFG. Agency—E GULF OH. Agency—Y HARTFORD
Agency—Campbell-Ewald Co., Inc.	Agency-Y
Agency—The B. C. Baer Co.	HARTFORD ACC. 4
A. M. BYERS CO	AGC. & Agency—M THE KERRI
Agency—Comstock & Co.	HOOKER EL
Agency—N. W. Ayer & Son, Inc.	HOTELS ST
Agency—Resean-Reichert, Inc. BURROUGHS ADDING MACHINE CO. HRC. HRC. SEAST ADDING MACHINE CO. HRC. HRC. HRC. HRC. HRC. HRC. HRC. HRC	Agency—Y HYATT BEA MOTORS
Agency—Cunningham & Walsh, Inc. CHASE NATIONAL BANK, INC. 94-95	THE HYDRA
Agency—Hewitt, Ogilvy, Benson & Mather, Inc. CHESAPEAKE & OHIO BAILWAY CO132	THE INTER
CHICAGO, MILWAUKEE, ST. PAUL &	JOHNS MAR
Agency—Roche, Williams & Cleary, Inc.	KALAMAZO
Agency—Doremus & Co. CHRYSLER CORP. (27	KELLER TO Agency—T
Agency—Deremis & Co. CHRYSLER CORP. 127 Agency—N. W. Ayer & Son, Inc. THE CINCINNATI GAS & ELECTRIC CO. 68 Agency—Stockton, Week, Burkhart, Inc. CLARAGE FAN CO. 161 Agency—William J. Williams CLUES 154	THE LAPOI Agency—W
CLARAGE FAN CO	Agency—B
Acong—William J. Williams CLUES GO. ARBON NFG. CO. 184 COLUMBIA. HISBON & CARBON NFG. CO. 184 COLUMBIA. M. Provided Acoo., Inc. COLUMBIA. SOUTHERN CHENICAL CORP., 37 Asong—Retchum, MacLood & Grove, Inc. COLUMBIA STEEL & SHAFTING CO. 33 COMBUSTION ENGINEERING-SUPER. HEATER, INC. 601 COMMONWEALTH EDISON CO. 91 AGENCE, J. Pershall Co. 91 AGENCE, J. Pershall Co.	Agency W LIBERTY W Agency B LINK BELT Agency K ARTHUR D.
Agency-E. M. Freystadt Assoc., Inc.	Agency—A MAGNAFLU
Agency—Ketchum, MacLeod & Grove, Inc.	MAINE DES
Agency—Walker & Downing, General Agency COMBUSTION ENGINEERING-SUPER-	Agency-R
Agency—G. M. Basford Co.	
COMMONWEALTH EDISON CO. 91 CONSUMERS POWER CO. 71 AGORY—Countonwealth Service. Inc. CONTINENTAL MOTORS CORP. 48 THE COOPER-BESSEMER LERF. 65 AGORY—THE CITYUNG SERVICE CONTINENTAL MOTORS CORP. 61 CORRY-JAMESTOWN MFG. CO. 116 CORRY-JAMESTOWN MFG. CO. 16 CRAME CO. 4  [47]	Agency—B MARSH & A Agency—D MEAD CORF
Agency—Commonwealth Services, Inc.	MEAD CORE
Agency—Cummings & Hopkins THE COOPER. RESSEMER CAMP	METROPOLI COMMIT
Agency—The Griswold-Eshleman Co. CORRY-JAMESTOWN MFG. CO	Agency-R
CRANE CO.  CREANE CO.  Agency—The Buchen Co.  CREDIT UNION NATIONAL ASSOC. 59  Agency—J. Walter Thompson Co.  (182  CREDIT CHEST CO. 162	Agency—A MISSISSIPP
CREDIT UNION NATIONAL ASSOC	MONROE CO
CRESCENT CO., INC	MONSANTO
CRUCIBLE STEEL CO. OF AMERICA 13	MOORE PU
CUMMINS-CHICAGO CORP. 129	MOSINEE P
CUMMINS ENGINE CO	Agency—C MOSINEE P Agency—E MOTOROLA Agency—G NATIONAL Agency—F
DAYTON ROGERS MFG. CO	NATIONAL Agency—F NATIONAL Agency—N
Agency—W. B. Domer & Co.	Agency—N
Agency—Brooke, Smith, French & Dorrance, Inc.	Agency—B
Agency—Horton-Noyes Co. THE F. W. DODGE CORP	Agency—F NATIONAL Agency—N NATIONAL Agency—W (GRIOL Agency—W NORFOLK
Agency-Albert Frank-Guenther Law, Inc.	NORFOLK A
Agency—J. Walter Thompson Co. DOUGLAS FIR PLYWOOD ASSOC	(GRIOL Agency—V NORFOLK Agency—U OKLAHOMA BOARD Agency—V
Accept J. Walter Thompson Co.  ACRESCENT CO., INC	Agency—V

nc-

ery ery eef 10

ing disenof

mot He ing

on In out

lb. in he

nd by lin ad nt-

ge as ay gh he

ng ire rst ned era lenis er. he nay of ds re lere ng leer, ed ut ın

rp

in

52

DOW CHEMICAL CO
Ampan MacMonna John & Adams Inc
EASTERN CORP
DOW CHEMICAL CO. Acency—MacManus, John & Adams, Inc. EASTERN OSBP.  180 THE ECLIPSE LAWN MOWER CO., BUY, OF BUFFALD CELIPSE CORP. 160 Acency—Comstock & Co. ELIOTT ADDRESSING MACHINE CO. 180 ELIOTTA DEBESSING MACHINE CO. 180 Acency—Microrial Control of the Contr
Agency-Comstock & Co. ELLIOTT ADDRESSING MACHINE CO 198
Agency-H. B. Humphrey, Alley & Richards, Inc. EMERSON ELECTRIC MFS. CO
THOMAS EMERY'S SONS, INC
EUREKA SPECIALTY PRINTING CO
FELT & TARRANT MFG. CO
Agency—N. W. Ayer & Son, Inc. FENWAL, INC
FINNELL SYSTEM, INC
FLYING TIGER LINES, INC
Agency-J. Walter Thompson Co.
Agency—Scott, Inc.
FELT & TARRANT MFG. CO.  FERROD S. W. Ayer & Son, Inc.  77  Agency—James Thomas Chirur Co., Inc.  FINNELL SYSTEM, INC.  88  FARENCY—JOHNSON, IREG & N.  Agency—Jisson & Jorganese Adv., Inc.  FORD MOTOR CO.  FORD MOTOR CO.  124  Agency—Risson & Jorganese Adv., Inc.  FORD MOTOR CO.  174  Agency—Risson & Jorganese Adv., Inc.  FOR RIVER PAPER CORP.  174  Agency—Roct, Inc.  186  FIELD R. CALCULATING MACHINE CO.  187  FIELD R. CALCULATING MACHINE CO.  188  Agency—Watter & Assoc.  FIELD R. CALCULATING MACHINE CO.  187  Agency—Watter & Assoc.  188  GENERAL BOX O.  400  400  500  500  500  500  500  50
FRISCO RAILWAY 1000
FULLER BRUSH CO
CAMERAL GOAL CO.  CAMERAL MOTORS CORP.  GENERAL MOTORS CORP.  ASSOCIATED Ruches CORP.  ASSOCIATED ROSE CORP.  ASSO
GENERAL MOTORS CORP.
Agency—Foote, Cone & Belding GERLINGER CARRIER CO
Agency—Hal Short & Co., Inc. THE GILBERT PAPER CO167
THE GLOBE-WERNICKE CO
THE B. F. GOODRICH CO
THE B. F. GOODRICH CO. Agency—The Griswold-Eshleman Co. GOODYEAR TIRE & RUBBER CO., INC. (PLIOFILM DIV.) Agency—Kudner Agency, Inc. GRAY MFG. CO
Agency—Kudner Agency, Inc.
Agency-Erwin, Walky & Co., Inc.
Agency—Young & Rubleam, Inc. HARTFORD FIRE INS. CO. & HARTFORD ACC. & IND. CO
Acc. & IND. CO
Agency—The Rowe & Wyman Co.
Agency—Charles L. Rumrill & Co., Inc.
Agency—Young & Rubleam, Inc.
MOTORS CORP
THE HYDRAULIC PRESS MFG. CO
Agency-Marschulk & Pratt Co.
Agency—J. Walter Thompson Co.
KALAMAZOO LABEL CO
Agency-William J. Williams
Agency—William J. Williams KELLER TOOL CO. Agency—The Fensholt Co.
Agency—William J. Williams RELLER TOOL CO. Agency—The Fensholt Co. THE LAPOINTE MACHINE TOOL CO. Agency—Wells Adv. Agency REPLY MITHAL INBURANCE CO. 22
Agency—William J. Williams  RELLER TOOL CO.  Agency—The Fensholt Co.  THE LAPOINTE MACHINE TOOL CO.  Agency—Wolls Adv. Agency  LIERTY MUTUAL INSURANCE CO.  22  Agency—Batten, Barton, Durstine & Osborn, Inc.
Agency—William A Williams RELLER TOOL CO.  THE LAPOINTE MACHINE TOOL CO.  AGENCY—WORLS AND ARROHANCE CO.  LIBERTY MUTUAL INSURANCE CO.  LINK BELT CO.  ARTHUR D. LITTLE, 1MC.  Belly Co.  LINK BELT CO.
Agency—William A Williams RELLER TOOL CO.  14 E. APOINTE MACHINE TOOL CO.  24 E. APOINTE MACHINE TOOL CO.  25 ELIBERTY MUTUAL INSURANCE CO.  25 Agency—Batten, Barton, Durstine & Osborn, Inc. LINK BELT CO.  Aconcy—Kalt Van Pieterson-Dunhap Assoc. Inc.  Aconcy—Achine W. Sampson Co., Inc.  MAGNAFLUX CORP.  22
GUEP OIL CURP'S INDICESS. INC.  ARTFORD FIRE IMS. CO. 4 HARTFORD  ACC. 4 IND. CO.  ACC. 4 IND. CO.  ACC. 4 IND. CO.  ACC. 5 IND. CO.  ACC. 6 IND. CO.  ACC. 7 INDICESS. INC. CO.  INDIC
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC 172
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC 172
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC 172
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC. 177 Agency—Fuller & Smith & Ross, Inc. MANZEL Agency—Baldwin, Bower & Strachan, Inc. MARSH & MoLENNAN, INC. 116 Agency—Dorentus & Co. 116 MEAO CORP. 116
Agency—Ray Mills Adv. Agency, Inc. MANNING. MAXWELL & MOORE. INC. 172 MANNING. Smith & Ross. Inc. MARSH & No.LENNAN, INC. 184 Agency—Baldwin, Hower & Strachas, Inc. Agency—Gray & Rosers MARSH & Machan & Marsh & Mar
Agency—Ray Mills Adv. Agency, Inc. MANNING. MAXWELL & MOORE. INC. 172 MANNING. Smith & Ross. Inc. MARSH & No.LENNAN, INC. 184 Agency—Baldwin, Hower & Strachas, Inc. Agency—Gray & Rosers MARSH & Machan & Marsh & Mar
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC. 177 MANNING, MAXWELL & MOORE, INC. 177 MARKET—Puller Smith & Ross, Inc. MARSH & McLENNAN, INC. 184 Agency—Baldwin, Rower & Strachas, Inc. MARSH & McLENNAN, INC. 184 MARSH & McLENNAN, INC. 184 MEAD CORP. 184 METROPOLITAN OAKLAND AREA COMMITTEE Agency—Horder & Ingram, Ltd. MERMAN MILLER FURNITUME CO. 44 MERMAN MILLER FURNITUME CO. 25
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC. 172 MANNING, MAXWELL & MOORE, INC. 172 MANNING, MAXWELL & MOORE, INC. 174 MARCH-Phills & Smith & Ross, Inc. MARSH & NoLENNAN, INC. 184 Agency—Baldwin, Hower & Stracham, Inc. MARSH & NoLENNAN, INC. 186 Agency—Gray & Rosers MARCH-Gray & Rosers MARCH-Gray & Rosers MARCH-Gray & MALAND AREA COMMITTEE MARCH-MAR
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC. 172 MANNING, MAXWELL & MOORE, INC. 172 MANNING, MAXWELL & MOORE, INC. 174 MARCH-Phills & Smith & Ross, Inc. MARSH & NoLENNAN, INC. 184 Agency—Baldwin, Hower & Stracham, Inc. MARSH & NoLENNAN, INC. 186 Agency—Gray & Rosers MARCH-Gray & Rosers MARCH-Gray & Rosers MARCH-Gray & MALAND AREA COMMITTEE MARCH-MAR
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc.  MANNING. MAXWELL & MOORE. INC. 172  BANZEL  Agency—Baldwin, Rower & Strachan, Inc.  MASSH & McLEMAN, INC. 184  Agency—Ray & Rogers  METROPOLITAN OAKLAND AREA  Agency—Gray & Rogers  Agency—Ryder & Ingram, Lidd.  Agency—Ryder & Ingram, Lidd.  Agency—Affred Anerbach Assoc.  MISSISSIP ID AGES CA. Agency  MONNOE CO. 192  Agency—Lessing Adv. Co., Inc.  MONNANTO CHEMICAL CO. 4th Cow.  MONNANTO CHEMICAL CO. 4th Cow.  MOORE PUBM-PIN CO. 172
Agency—Ray Mills Adv. Agency, Inc. MANNING, MAXWELL & MOORE, INC. 172 MANNING, MAXWELL & MOORE, INC. 172 MANNING, MAXWELL & MOORE, INC. 174 MARCH-Phills & Smith & Ross, Inc. MARSH & NoLENNAN, INC. 184 Agency—Baldwin, Hower & Stracham, Inc. MARSH & NoLENNAN, INC. 186 Agency—Gray & Rosers MARCH-Gray & Rosers MARCH-Gray & Rosers MARCH-Gray & MALAND AREA COMMITTEE MARCH-MAR

OLIVETTI CORP. OF AMERICA193
THE OSBORN MFG. CO144
OLIVETTI CORP. OF AMERICA
OWENS-ILLINOIS GLASS CO.,
Assecy—Ewell & Thurber Assoc.
PACIFIC INTERMOUNTAIN EXPRESS 74
PHILLIPS PETROLEUM CO
PITNEY-BOWES, INC
PITTEBURGH CORNING CORP
PITTSBURGH PLATE GLASS CO 97
Amengy—L. E. McGivena & Co., Inc. PITSBURGH CORNING CORP. 146 Ageory—Batten, Barton, Durstine & Osborn, Inc. PITSBURGH PLATE GLASS CO. 97 Agency—Maxon, Inc. POTTER & BRUMFIELD. 134
PRESSED STEEL TANK CO
Agency—The Buchen Co. PROLON PLASTICS (DIV. OF PRO-PHY-LAC-TIC BRUSH CO.)188
PROLON PLASTICS (DIV. OF PRO-PHY-LAC-TIC BRUSH CO.)
Agency—Lambert & Feasley, Inc. PUBLIC SERVICE ELECTRIC & GAS CO 62 Agency—United Adv. Agency
PULLMAN CO
Agency—Young & Rubicam, Inc.
Agency—L. W. Ramsey Adv. Agency
Agency—George Brodsky
Agency-MacManus, John & Adams, Inc.
CO 40
REMINGTON RAND, INC
RHEEM MFG, CO
AgencyCampbell-Ewald Co.
Agency-L. J. DuMahaut Adv. Agency
Agency-Young & Rubicam, Inc.
Agency-O'Grady-Anderson-Gray, Inc.
Agency-Bond & Starr, Inc.
SCOTT AVIATION CORP
SHARON STEEL CORP
THE SHEFFIELD CORP
SHELL CHEMICAL CORP
SKF INDUSTRIES, INC
L. C. SMITH & CORONA TYPEWRITERS,
L. C. SMITH & CORONA TYPEWRITERS, INC. Amprey—Cunningbam & Walsh, Inc.
L. C. SMITH & CORONA TYPEWRITERS. INC. Agency—Cunningham & Walsh, Inc. B. C. RESEARCH, PLANNING & DEVELOPMENT BOARD. 101
C. SMITH & CORONA TYPEWRITERS, INC. Agency—Cunningham & Walsh, Inc. B. C. RESEARCH, PLANNING & DEVELOPMENT BOARD AGENCY—Henderson, Adv. Agrocy 25
C. SMITH & COMONA TYPEWNITERS, INC. ARROCY—CURRINGHAM & WAISH, INC. ACRECY—CURRINGHAM & WAISH, INC. B. C. RESEARCH, PLANNING & DEVELOPMENT BOARD AGENCY—Henderson Adv. Agmacy SPERRY GYROSCOPE CO., INC. 25 Agency—Chas, Dallas Heach Co., Inc.
L. C. SMITH & COMONA TYPEWRITERS, INC. Assocy—Cunningham & Walth. Ibc. D. C.
L. C. SMITH & COMONA TYPEWRITERS, INC. Americ—Cunningham & Walch, Inc. S. C. RESEARCH, PLANNING & 101 Americ—Henderson Adv. Assect SPERHY GYNOSCOPE CO., INC. 25 Agency—Chac, Dallas Reach Co., Inc. THE STELLORAFT MF G. CORP. 182 STONE & WESSTER, INC. 160 Agency—Docenus & Co., Inc. 160 Agency—Docenus & Co., Inc.
L. C. SMITH & CORONA TYPEWRITERS, INC. ASSECT-CUMMINGAM & WAIS, INC. B. C. RESEARCH, "LARNING & DEVELOPMENT BOARD.  DEVELOPMENT BOARD.  SPERMY CYROSCOPE CO., INC. 25 ASSECT-Chas, Dallas Reach Co., INC. THE STEELERAFT MFG. CORP. STONE & WESTER, INC. 160 THE STEELERAFT MFG. (66) THE STURBIS FORTURE CHAIR CO. 61 ASSECT-RESTER, INC. 160 THE STURBIS FORTURE CHAIR CO. 61 ASSECT-RESTER, INC. 160 THE STURBIS FORTURE CHAIR CO. 61 ASSECT-RESTER, INC.
L. C. SMITH & COMONA TYPEWRITERS, INC. Assocy—Cunningham & Wald, Inc. DEVELOPMENT BOARD   101 Assocy—Henderson Adv. Assocy SPERRY GYNOSCOPE CO., INC. 25 THE STEELCRAFT MFG. CORP.   152 Assocy—Henderson Adv. Assocy STONE & WESSTER, INC.   169 Assocy—Hender Development Challe Co.   160 Assocy—Haco Adv. Assocy Assocy—Haco Adv. Assocy He STUDIES POSTURE CHAIR CO.   159 Assocy—Haco Adv. Assocy Hender Medical Company   150 Assocy—Haco Adv. Assocy Hender Medical Company   150 Hender
L. C. SMITH & COMONA TYPEWRITERS. INC. Acency—Conningham & Wald. Ibc. S. C. RESEARCH & LANGHING & O. RESEARCH & LANGHING & IOI AGENCY—Henderson Adv. Agency SPERRIV GYNOSCOPE CO. 180. 25 Agency—Chas. Dallas Reach Co., Ibc. 142 Agency—Henderson Adv. Agency SPERRIV GYNOSCOPE CO. 180. 182 Agency—Henderson Adv. Langh. Ibc. 183 184 185 185 185 185 185 185 185 185 185 185
L. SHITH & CORONA TYPEWRITERS, INC. Americ—Cunningham & Walsh, Inc. B. C. RESEARCH, PLANNING & L. RESEARCH, PLANNING & 101 Americ—Henderson, Adv. Assect SPERHY GYNOSCOPE CO., 18C, 25 Agency—Chao, Dallas Rosch Co., Inc. THE STELLORAPT MFG CORP. 182 STONE & WESSTER, 18C, 160 Agency—Decening & Co., Rolling Co., 18C, Agency—Decening & Co., Rolling Co., 18C, Agency—Marco Adv. Assect Agency—Walter & Downing TENNESSEE PRODUCTS & CHEMICAL CORP. 280 C
LC. SMITH & CORONA TYPEWRITERS, INC. Acency—Cunningham & Wald. Inc. DEVELOPMENT BOARD  OFFICE OPPERT BOARD  OFFICE OFFICE OFFICE PROBLEM OF THE STEEL CRAFT  THE STEEL CRAFT MFG. CORP.  152 Acency—Hinhauff & Runn, Inc. STONE & WESSTEEL, INC. 152 Acency—Nathauff & Runn, Inc. 153 TONE & WESSTEEL, INC. 154 Acency—Walter & Downing TENNESSEE PRODUCTS & CHEMICAL CORP. THE STUMES PROFUME CHAIR OB.  150 TENNESSEE PRODUCTS & CHEMICAL CORP. THE TEXAS CO.  Agency—Canningham & Waish, Inc. 154 Acency—Walter & Downing THE TEXAS CO.  155  156  157  158  158  158  158  158  158  158
L. C. MAITH & CORONA TYPEWRITERS, INC. Assocy—Conningham & Watch, Ibc. Assocy—Conningham & Watch, Ibc. DEFELOPMENT BOARD ASSOCIATION OF THE ASSOCI
L. C. SMITH & COMONA TYPEWRITERS, INC. Americ—Conningham & Walch, Ibc. S. C. RESEARCH, "LANNING & 101 Americ—Henderson Adv. Agency SPERHY GYROGOPE CO., 180. 25 Assence—Chas, Dallas Rosch Co., Ibc. THE STELLORIUM & 180. STONE & WESSTER, 180. Agency—Doromus & Co., Ed. 180. SUPERIOS STELL CORP. Agency—Doromus & Co., Ed. 180. SUPERIOS STELL CORP. Agency—Walter & Downing TENNESSEE PRODUCTS & CHEMICAL ORP. TO THE TEXAS CO. Agency—Cunningham & Walsh, Ibc.  154 TOWNOTOR CORP. TOWNOTOR CORP. 154 TOWNOTOR CORP. 155 TOWNOTOR CORP. 156 TOWNOTOR CORP. 156 TOWNOTOR CORP. 156 TOWNOTOR CORP. 157 TOWNOTOR CORP. 158 TOWNOTOR CORP. 158 TOWNOTOR CORP. 159 TOWNOTOR CORP. 159 TOWNOTOR CORP. 159 TOWNOTOR CORP. 150 TOWNOTOR CORP. 156 TOWNOTOR CORP. 157 TOWNOTOR CORP. 156 TOWNOTOR CORP. 157 TOWNOTOR CORP. 158 TOWNOTOR CORP. 158 TOWNOTOR CORP. 158 TOWNOTOR CORP. 159 TOWNOTOR CORP.
LC. SMITH & CORONA TYPEWRITERS.  INC.  Acency—Cunningham & Wald. Inc.  DEVELOPMENT BOARD  OFFICE OPPERT BOARD  OFFICE OF SMITH STATES  PERTY CYPERT BOARD  OFFICE OF SMITH SMI
C. SHITH & CORONA TYPEWRITERS, INC. Acency—Conningham & Wath, Inc. Acency—Conningham & Wath, Inc. DEVELOPMENT BOARD  ASSENCE HORSEN  ASSENCE HORSEN  ASSENCE HORSEN  ASSENCE HORSEN  THE STEELCRAFT MFG. CORP.  152  ACENCY—RICHARD FOR THE CHAIR OB.  61  ACENCY—RICHARD FOR THE CHAIR OB.  61  ACENCY—RICHARD FOR THE CHAIR OB.  61  ACENCY—THE STUME POSTUME CHAIR OB.  61  ACENCY—THE GIVENOUS FOR CHAIR OB.  61  ACENCY—THE GIVENOUS FOR CHAIR OB.  61  ACENCY—THE GIVENOUS FOR CHAIR OB.  62  ACENCY—THE OBJECT OF THE CHAIR OB.  63  ACENCY—THE OBJECT OF THE CHAIR OB.  64  ACENCY—THE OBJECT OF THE O
C. SHITH & CORONA TYPEWRITERS, INC. Acency—Conningham & Wald, Ibc. S. C. RESEARCH & LANGHING & LOTRIGHT & CORONA & LOTRIGHT & ACENCY—Linderson Adv. Agency SPERRY GYROSCOPE CO., INC. 25 Agency—Chas. Dallar Reach Co., Ibc. 142 Agency—Hinterson & Ryan, Ibc. 150 150 160 160 170 170 170 170 170 170 170 170 170 17
L. C. SMITH & CORONA TYPEWRITERS, INC.  ACRECY—CUNNINGHAM & WAIG, Inc.  ACRECY—CUNNINGHAM & WAIG, Inc.  DEVELOPMENT BOARD  101  ADDRESS OF BOARD  101  ADDRESS OF BOARD  102  PERNY CYPERT BOARD  105  ACRECY—Henderson Adv. Agracy  ACRECY—Henderson Co., Inc.  THE STUBLISH POSTURE CHARM 08. 61  AGRICH—HERD ADV. AGRICH  TENNESSEE PRODUCTS & CHEMICAL  CORP.  ACRECY—White A Downing  TENNESSEE PRODUCTS & CHEMICAL  CORP.  ACRECY—CONTINUES & WAIGH, Inc.  150  AGRICH—CONTINUES & CHEMICAL  CORP.  ACRECY—CONTINUES & WAIGH, Inc.  154  AGRICH—CONTINUES & CHEMICAL  CORP.  ACRECY—CONTINUES & CHEMICAL  ACRECY—CONTINUES & CHEMICAL  ACRECY—THE CITEROIS CHEMICAL  ACRECY—THE CITEROIS CHEMICAL  ACRECY—THE MERCHAINES, INC.  ACRECY—THE MERCHAINES, INC.  ACRECY—THE MERCHAINES, INC.  TRAVELERS INSURANCE CO.  ACRECY—THE ACRECY—THE ACRECY—THE  TRAVELERS INSURANCE CO.  ACRECY—THE ACRECY—THE ACRECY—THE  TRAVELERS INSURANCE CO.  ACRECY—THE ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACRECY—THE ACRECY—THE  ACR
C. SHITH & CORONA TYPEWRITERS, INC. ASSECT—CONDINGENIA & WAIG. IDC. ASSECT—CONDINGENIA & WAIG. IDC. ASSECT—CONDINGENIA & WAIG. IDC. DEVELOPMENT BOARD.  OF ASSECT. DEVELOPMENT BOARD.  OF ASSECT. SPERRY SYNOROGYE CO., INC.  25 THE STELLORATY MFG. CORP.  152 ASSECT. ASSECT. THE STURIES POSTURE CHAIR OB.  OI ASSECT. ASSE
C. SMITH & CORONA TYPEWRITERS, INC. Americ—Conningham & Walch, Ibc. C. CRESCACO, CONTROL & MARCH. AMERIC—CONTROL & MARCH. AMERICA—CONTROL & MARCH. A
C. SHITH & CORONA TYPEWRITERS, INC. Acency—Cunningham & Wald, Inc. B. Acency—Cunningham & Wald, Inc. DEVELOPMENT BOARD  OF A COPPENT BOARD  OF A C
C. SHITH & CORONA TYPEWRITERS, INC. Acency—Cunningham & Wath, Inc. Acency—Cunningham & Wath, Inc. DEVELOPMENT BOARD  AIR DEVELOPMENT BOARD  OF THE STREET OF THE CORONAL AGENCY PERRITY SYNOROGYPE CO., INC. 25 THE STEELCRAFT MFG. CORP. 152 ACENCY—RICHARD FOR CORP. 153 TONE & WESSTER, INC. 155 TONE & WESSTER, INC. 155 THE STUNGLE POSTURE CHAIR CO. 156 ACENCY—RICHARD AGENCY PERRITS TELL CORP. 157 TENNESSEE PRODUCTS & CHEMICAL CORP. 158 TENNESSEE PRODUCTS & CHEMICAL CORP. 158 THE TYMAS CO. 158 ACENCY—TICHARD AGENCY INC. 158 THE TYMAS CO. 158 ACENCY—TOWN AGENCY INC. 158 ACENC
C. SHITH & CORONA TYPEWRITERS, INC. Accept Conningham & Wath, Inc. Accept Conningham & Wath, Inc. DEVELOPMENT BOARD AGENCY—Understand Adv. Agency SPERRY GYPOSCOPE CO., INC. 25 Accept Conningham Adv. Agency SPERRY GYPOSCOPE CO., INC. 25 Accept Conningham Adv. Agency Accept Conningham Adv. Agency SPERRY GYPOSCOPE CO., INC. 25 Accept Conningham Adv. Agency SPERRY SPE
L. C. BRITH & CORONA TYPEWRITERS, INC.  ASSOC — CONDINGENS & WARD, Inc.  ASSOC — CONDINGENS & WARD, Inc.  DEVELOPMENT BOARD
C. SHITH & CORONA TYPEWRITERS, INC. Acency—Cunninghain & Wald, Inc. DEVELOPMENT BOARD  OFFICE OPPENT BOARD  OFFICE OF STREET O
L. C. SMITH & CORONA TYPEWRITERS, INC. ASSECT—CONDINGENIA & WAIG, IDC. ASSECT—CONDINGENIA & WAIG, IDC. DEVELOPMENT BOARD.  OF A CONDINGENIA & WAIG, IDC. DEVELOPMENT BOARD.  OF A CONDINGENIA & CONDIN
LC. SMITH & CORONA TYPEWRITERS, INC.  ACREC — CONDITION & WINE, INC.  PERSON & CONDITION & CON
C. SHITH & CORONA TYPEWRITERS, INC. Acency—Cunningham & Wald. Inc. S. Acency—Cunningham & Wald. Inc. DEVELOPMENT BOARD  OF LOOPER OF LOOPER OF LOOPER  THE STURIES POSTURE CHAIR OB.  OF LOOPER OF LOOPER OF LOOPER  TENNESSEE PRODUCTS & CHEMICAL  CORP.  ACENCY—Walter & Downing  TENNESSEE PRODUCTS & CHEMICAL  CORP.  ACENCY—Uningham & Waish, Inc.  25  THE TEXAS CO.  ACENCY—Uningham & Waish, Inc.  THE TEXAS CO.  ACENCY—Uningham & Waish, Inc.  THANE WORLD A HILLIES INC.  OWNOTOR CORP.  ACENCY—HOWARD SWINK Advertising Acency. Inc.  TRAYELERS INSURANCE CO.  ACENCY—TOWN & WAISH CO.  TRAYELERS INSURANCE CO.  ACENCY—TOWN & LOOPER OF LOOPER
LC. SHITH & CORONA TYPEWRITERS, INC. ASSECT—CONDINGENIA & WAIG. IDC. ASSECT—CONDINGENIA & WAIG. IDC. ASSECT—CONDINGENIA & WAIG. IDC. DEVELOPMENT BOARD.  OF LOWER OF BOARD.  OF LOWER OF BOARD.  OF LOWER OF BOARD.  OF LOWER OF LOW
LC. SMITH & CORONA TYPEWRITERS, INC.  ASSOC — CONDITION & WINT, IDC.  ASSOC — CONDITION & COND
L. C. SMITH & CORONA TYPEWRITERS, INC. Acency—Cunningham & Wald, Inc. B. Acency—Cunningham & Wald, Inc. DEVELOPMENT BOARD  OFFERING OPPENT BOARD  THE STURICHART FG. CORP.  OFFERING OPPENT BOARD  TENNESSEE PRODUCTS & CHEMICAL  CORP.  ACENCY—Value of Corona  THE TEXAS CO.  ACENCY—Value of Corona  OFFERING OPPENT BOARD  OF
LC. SMITH & CORONA TYPEWRITERS, INC. ASSECT—CONDINGENIA & WAIG. IDS. ASSECT—CONDINGENIA & WAIG. IDS. DEVELOPMENT BOARD  ASSECT—CONDINGENIA & WAIG. IDS. DEVELOPMENT BOARD  ASSECT—CONDINGENIA & WAIG. IDS. DEVELOPMENT BOARD  ASSECT—CONDINGENIA & WAIG. IDS. THE STEEL CRAFT MFG. CORP. THE STUMES POSTUME CHAIR OB. OIL ASSECT. THE STUMES POSTUME CHAIR OB. OIL ASSECT. TENNESSEE PRODUCTS & CHEMICAL CORP. THE TYPE STUMES OF WAIG. IDS. THE THE STEEL CORP. THE TYPE STUMES OF WAIG. IDS. THE THE STEEL CORP. THE TYPE STUMES OF WAIG. IDS. THE THE STUMES PRODUCTS & CHEMICAL CORP. THE TYPE STUMES OF WAIG. IDS. THE THE STUMES OF WAIG. IDS. THE THE STUMES OF WAIG. IDS. THE THE STUMES OF WAIG. IDS. THE STUMES OF WAIG. THE STUMES OF WAIG. IDS. THE STUMES OF WAIG. IDS. THE STATES OF WAIG. IDS. THE STATES OF WAIG. IDS. THE STATES OF WAIG. IDS. THE STUMES OF WAIG. IDS. THE STUMES OF WAIG. IDS. THE STATES OF WAIG. IDS. THE STUMES O
LC. SMITH & CORONA TYPEWRITERS, INC.  ASSOC — CONTINUEND & WINCE IDS.  ASSOC — CONTINUEND & CONTINUEN
LC. SMITH & CORONA TYPEWRITERS, INC. Acency—Cunningham & Wald. Inc. B. Acency—Cunningham & Wald. Inc. DEVELOPMENT BOARD  OF LOPERIT BOARD
PUBLIC SERVICE ELECTRIC & OAS CO. 62 Agency—Intel Adv. Ascney GUINGY COMPRESSOR C. 10 Agency—I. W. Bansey Adv. Assmmy THE RAULAND CO. 100 Agency—I. W. Bansey Adv. Assmmy THE RAULAND Roods BEIGHHOLD CHEMICALS, 18C. 41 Accney—Modram & Formatib, 18c. 41 Accney—Modram & Formatib, 18c. 42 Accney—Modram & Formatib, 18c. 40 Accney—Assmed Boll Research, 18c. 45 Accney—Assmed Boll Research, 18c. 45 Accney—Assmed Boll Research, 18c. 45 Accney—Modra Boll Research, 18c. 45

## The Blessed Business of Giving

The business of giving has always been blessed. It has not always been so complex and beset with problems as it is today—at least for businessmen.

American corporations are contributing about \$250-million annually to good causes. That's a lot of money. It represents 0.7% of income before taxes. The law says corporations can give away as much as 5% as a deductible expense. That could run toward \$2-billion a year.

The job of management men is a tough one today. They must conduct the affairs of their companies successfully from the standpoint of the profit and loss statement. They must also help create and maintain a climate in which the operation of private industry is regarded by an overwhelming majority of the people of the country as being in their best interest. That is why business' giving to charitable causes is essential. What we don't do for ourselves in these fields, Uncle Sam is apparently willing to step in and do for us with new taxes and new controls.

Private enterprises like the small colleges, the hospitals, the independent research groups are having hard sledding. These groups would rather have private money than government subsidy and control. They tell the businessman that he will find it profitable to give more to them rather than to pay an excess profits tax on money that the government is willing to let companies give away untaxed.

To this argument, experts like Beardsley Ruml give a harder twist by producing figures. If business is permitted by law to give away 5% of income before taxes, and only gives away the present figure of 0.7%, management pays to government more in taxes than it needs to. That ungiven 4.3% is subject to very high taxes before the remainder goes to stockholders or is plowed back into the business. Ruml thinks that the ungiven 4.3% might better go to private education, hospitals, or scientific research than to serve as a base for taxes.

But what about the stockholder? It's his money, after all, that's being given away. He finds himself caught in a cleft stick. He may well prefer to get his share of profits in the form of dividends and give it where he pleases (or spend it if he chooses). But the present tax law leaves him a very much reduced share of his company's earnings. If he lets the company do the giving, the government takes the loss. He can then have a share of the profit dollar in dividends, plus his share of pride in company generosity.

This argument is sound, of course, but it is not necessarily persuasive. Stockholders are normal folk. Most of them would rather get some part of the profit dollar, even if only what Uncle Sam leaves, than none at all. And they can sue if they aren't convinced that management's explanation of corporate contributions is right.

Stockholders have gone along willingly with programs

such as scholarship funds that bring direct benefits to their companies. The problem relates to company giving where the benefits are great, but not so direct and easy to see. Here is one of management's big jobs—to give stockholders the full story on how essential that kind of giving is.

Another question that management must face is one of ways and means. How can contributions be made so as to get the most value and give the head office the fewest headaches?

Like other Americans, businessmen like to give spontaneously. They would rather make up their own minds, yet the pressures come from every side, and to administer wisely takes time.

The modern answer is a company foundation into which the agreed share of earnings can be transferred when they are figured at the year's end. Rich men in the old days had almoners who sorted out the needy from the noisy and gave in their employer's name. Corporations are more and more setting up almoner foundations, which give in the corporation's name. As non-profit organizations, they make it possible to hold profits past the year's end and to give them out to worthy causes after proper inquiry. Ford, Sears, Roebuck, and Bulova Watch Co. are examples of companies that are finding this device useful. Others are exploring it.

The weight of taxes on individual incomes no longer leaves that traditional source of support adequate for the needs of privately organized good works. Diversion of a larger share of business income to this critical use is necessary. It is a project that management and stockholders must attack with increased vigor if a vital flame in our free society is not to flicker out.

## Captive Audience

Shave, sir? Want an economics lesson with your hot towel?

Tilford E. Dudley, assistant director of the CIO's Political Action Committee, told union barbers in convention at Atlantic City the other day that they ought to make sure their customers got the truth about labor's cause. No more silly jokes with customers over baseball or the horses. "You don't have to cram your hand down the customer's throat," said Dudley, "but tell the man in the chair why taxes are unequal and prices are high."

It looks as if the CIO propagandists are getting their human nature a bit mixed up. The value of persuasion at the razor's edge is doubtful. Even the CIO will find that a captive audience doesn't stay sold.

Our bet is that the CIO barbers will spurn brother Dudley's advice. They may try it, but they know, too, that the homes of the land are full of safety razors that neither lecture nor charge.

## We'll keep your material moving

to givasy ive nd

ne de he

ve vn to

to

 anything, from light duty freight to power trucks for scheduled vertical-linkage in your materials handling system.

We can offer you the economy of standard freight elevators for regular service. And special adaptations for the unusual. Plus uninterrupted operation.

We deal in height. Moving material and men vertically. More than half of the world's freight moves on Otis elevators. Our broad experience is available, without charge, to everyone.

Otis is the only elevator manufacturer that designs and builds everything from pit to penthouse. Based on: Research that advances electronic operation \*Planning that gives better service with fewer elevators \*Engineering that turns tested theory into better elevatoring \*Manufacturing that concentrates entirely on vertical transportation \*Construction that brings elevator-trained men to your installation \*Service that's available 24 hours a day in 263 cities.

This background of elevator experience unequalled anywhere—delivers the promise that forms the basis of every Otis contract: The world's finest elevatoring. Otis Elevator Company, 260 11th Ave., New York I, N. Y.

## Better elevatoring is the business of



Passenger Elevators • Freight Elevators Electric Dumbwaiters • Escalators Maintenance • Modernization





# Indianapolis and Terre Haute

Up the Pullman steps, Mr. Clark puffed slightly. Like some 28 million other Americans, he was uneasily aware that he was getting, well, pudgy.

Later, in the diner, he looked enviously at the trim couple across the table. Before them were generous servings of lean meat, vegetables, black coffee. No dieting for them!

"But we are on a diet," they chorused. And told how their doctor had advised the balanced diet, fitted to their systems' specific needs, that only a doctor can properly prescribe. And all without robbing them of a single needed protein, vitamin or mineral.

"I'm not even deprived of sweetening," the other man said. "See. A quartergrain saccharin tablet in my coffee . stir . . . it's sweetened. Yet, nary a calorie. My doctor says saccharin is absolutely harmless in customary use."

Next day, Mr. Clark saw his doctor. A month later, with his modern diet for girth control, he'd shed 11 pounds. But, he alway said, he really lost them in that single hour when he learned that all the sweetness needn't go out of life when you diet.

RECIPE BOOKLET of appetizing low-calorie desserts made with saccharin, as part of diet your doctor prescribes . . . write for free copy. Saccharin, 400 times sweeter than sugar, is purely a condiment . . . has no food value. Established by 50 years' use as America's standard, lowest-cost non-nutritive sweetener. Harmless in customary use. Quarter-grain saccharin tablets, made by leading pharmaceutical manufacturers, are available at all drug stores

MONSANTO CHEMICAL COMPANY. 1700 South Second Street, St. Louis 4, Missouri. Monsanto Canada Limited, Montreal, Vancouver.



Serving Industry . . . Which Serves Mankind